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ABSTRACT

This proceedings includes: "Bridging the International Learning Gap" (Arnold); "Back to the Future" (Baker); "Conducting Successful Class Projects over the Internet" (Beasley); "The Need for Ethics Instruction at the High School Level" (Brown); "Incorporating Industry-Based Skills Standards into High School Secretarial Programs" (Bunn); "School-to-Work Integration" (Cauley); "Preparing a Business Plan" (Clodfelter); "DECA [Distributive Education Clubs of America]" (Collins); "International Telecommunication" (Cotten); "If You Could See What I See" (Fournier, Brown, III); "How Non-School Experiences Prepare Students for High Performance Education and Work Tasks" (Fritz); "TQM [Total Quality Management] and TQE [Total Quality Education]" (Gerken, Hildebrandt); "Work-Based Curriculum" (Giovannini); "How Do We Keep Counselors Informed about Marketing Education (ME)?" (Goins); "Communicating with More than Words" (Gordon); "Is Business and ME's Curriculum Ready for Life-Coping Skills?" (Greathouse); "Back to the Future in Workforce Education" (Hall, Hicks); "Ice Breakers for Your Interactive Business Classes" (Henson); "Back to the One-Room School" (Holsey); "Teaching beyond the Software" (Jackson); "'Toto, I Don't Think We're in Kansas Anymore'" (Jackson); "Incorporating Cooperative Learning into Word/Information Processing Classes" (Jones); "Faculty Attitudes towards E-Mail" (Kandies); "Can Multimedia REALLY Enhance Instruction?" (McAlister-Kizzer); "Active Learning Instructional Strategies for Business Courses" (Luckey); "The Future Is Now through Distance Learning" (Lush, Jenkins); "Incorporating Higher-Order Thinking Skills into the Business Classroom" (Magee); "The Information Superhighway" (McCannon); "Weathering Change in the North Carolina Community College System" (Morrissey); "Implications of SBM [Site-based Management] for the Preparation of Public School Teachers and Administrators in North Carolina" (O'Brien, Reed); "SaintSERVE" (Ostheim); "Desktop Publishing Using WordPerfect" (Quesenberry Skelton); "The Future Is Now with Interactive Television" (Richerson); "Business Ethics Using a Teaching Model" (Roach);

"Experiencing Business and Academic Integration through a Case Study Approach" (Schmidt et al.); "Does Color Really Work in Increasing Interest in Business and Marketing?" (Scriven et al.); "An Outsider on the Inside" (Seibel); "Does the Business Education (BE) Curriculum Need Disinfecting?" (Sox); "Marketing Management" (Truell, Price); "Virtual Curriculum" (Vogler, Leitzel); "TAP into Your Future" (Volk, Holsey); "Virtual Reality for Business and ME" (Wallace); "Portfolios in Teacher Education" (Wells); "Opening Windows to the Future of BE" (Wilson); and "Innovation through Office Technology" (Anderson-Yates). (YLB)

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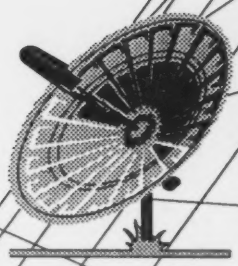
Back to the Future



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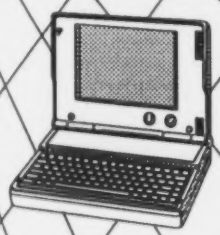

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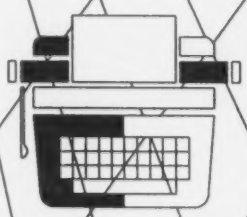

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BUSINESS AND MARKETING EDUCATION

Twelfth Annual Atlantic Coast
Business and Marketing
Education Conference

Raleigh, North Carolina

February 17-18, 1995

SPONSORED BY

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EDITORIAL COMMENT

The ***Proceedings of the Twelfth Annual Atlantic Coast Business and Marketing Education Conference*** are published by the Department of Business, Vocational, and Technical Education, School of Education, East Carolina University, Greenville, NC 27858-4353. The 1995 Conference was held on February 17-18, 1995 in Raleigh, North Carolina with the theme, ***Back to the Future with Business and Marketing Education***.

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Randy L. Joyner
Randy L. Joyner, Editor

Proceedings of the Twelfth Annual Atlantic Coast Business and Marketing Education Conference

Volume 6

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Bridging the International Learning Gap

Vivian O. Arnold
East Carolina University

Introduction

Being a Delegate to the Societe Internationale Pour L'Enseignement Commercial (SIEC) and International Society for Business Education (ISBE) Conference held in July 1994 is one way to bridge the international learning gap. SIEC/ISBE is a unique organization bringing together people from many different countries but with the common aim of promoting business education and training through learning from one another. The theme for the Conference was . "Internationalizing Business Education: A Nordic Perspective." Oslo, Norway, was the host site, the Norwegian Chapter of SIEC served as the host group, and the Norwegian School of Management was the host university. There were 260 participants with 22 countries represented.

Learning Through SIEC/ISBE Sessions

Learning through SIEC/ISBE was enhanced by the sessions presented during the week-long conference. Each country had the opportunity to present one session. Some sessions of interest included Reform of the Norwegian Educational System; a panel discussion of the European Economic Union; International Programs for Export Marketing Executives and Management by Negotiations, Flexible and Open Learning in Business Education, and Multimedia. Discussions of these sessions follow.

The **Norwegian Educational System** was discussed by the Deputy General Director, Ministry of Education, Research and Church Affairs. One of the basic principles of Norwegian educational policy is that all children and young people have an equal right to education and training irrespective of domicile, sex, social or cultural background and aptitude. Both Norwegian and English are taught. From a population of 4.3 million, almost 900,000 are undergoing some form of education or training, and further, 1.3 million follow adult education courses. The education system in Norway has three main levels: compulsory school (primary and lower secondary for ages 6 to 16-year-olds), upper secondary education, and colleges and universities. There are 3,350 primary and lower secondary schools, 700 upper secondary schools, 98 regional colleges, 6 university-level colleges, and 4 universities. In addition, approved private schools receive 75%-85% of the operating costs from the state. Upper secondary education (for ages 16-19) which combines academic and vocational education is followed by entry to either (1) higher education or (2) a trade or journeyman's certificate. All state education is free until age 19.

The Government and the legislature (Storting) mandated a common standard for the national educational system in structure and content at all levels—**Reform 94**. Major changes included (1) a reduction in the number of foundation courses offered at upper secondary level from over a hundred to thirteen general areas; (2) compulsory school was lowered from 7 to 6 years; (3) the 98 regional colleges were reassigned into 26 colleges; and (4) each college broadened the range of subjects taught with each college having a specialty. For example, the only National College for Teachers of Business Education is located in Honefoss. Graduate programs are offered at four locations—one private and three public institutions.

The pros and cons of Norway's joining the **European Economic Union** (European Common Market) was an important topic. Basically, Nordic industries of fishing, farming, and lumbering are opposed to the Union. Others, especially city dwellers, prefer the union. On the one hand, if the Union is accepted, Spanish ships will be allowed to fish in Nordic waters and compete for world markets and membership means submitting to rule from union headquarters in Brussels. On the other hand, if the Union is rejected, Norway must compete with developing industries and markets—those in what once was the USSR and those in the European Common Market which will cost jobs, isolate the country, and cut exports. Emphasis was placed on the changed conditions in Russia and the loss of those markets. Speakers from Spain looked at international trade between the Nordic Countries and the European Union in terms of competition for tourism, oil production, fishing, and timbering. They concluded that the Nordic countries should join because of their small population in relation to the Economic Union and because of the numbers of tourists that could be invited to Norway. The Spaniards conceded that the Nordic countries would bring stability to the monetary system and a tendency toward peace if they joined. (Note: Finland, Austria, and Sweden voted to join the 12-nation Union during

the Fall; however, Norwegians voted to stay out of the world's largest trading and political bloc.)

Norwegian speakers who were instructors in the **International Programs for Export Marketing Executives and Management by Negotiations** supported the thesis that you cannot become international at home. Thus, exchange programs were established in 41 sites with other English-speaking countries (Denmark, Great Britain, etc.) as well as France. Positive results were experienced by these exchange students concerning language usage, society and culture tolerance, international attitude, market and management knowledge, acquisition of appropriate techniques and ideas, accepted business usage, experiences in project work and working with others, experience in living abroad, and forming a network of contacts. Negotiations were conducted using E-mail.

The English group reported the results of their project on **flexible and open learning in business education**—*Getting Inside Knowledge: Developing Understanding of Intercultural Communications for International Business Through Open Learning.* Undergraduate Business Education students, preparing to teach, designed and produced open learning materials for intercultural communications assignments by designing modules. This method proved to be effective for three reasons: (1) a high level of synthesis of complex ideas and student motivation; (2) acquisition and development of business knowledge; and (3) the development of communication and transferable skills. The students' learning outcomes indicated that this approach may offer a way to establish levels of understanding more effectively than conventional assessment methods, such as dissertations, reports, and student presentations.

Sweden/Norway's presentation was a demonstration on **Multimedia—How to Use It as an Effective Tool in Our Schools**. The Director of the Daisy Center, Honefoss, made a presentation using an American/French computer with CD ROM, sound card, transistor radio with amps, Real Magic card for video, LCD panel, and a touch-sensitive multi-dimensional menu. The sound demonstration included text, pictures, animation, and sound. Microsoft Word for Windows was used for text, Microsoft Paintbrush was used for drawings, videos in analog and digital form were used for pictures (The movie chosen was Top Gun.), as well as photo CD. This presentation was amazingly similar to what might be prepared on any other campus.

Learning Through Exchange Programs

The instructors from Norway and Russia described some cultural challenges they dealt with when initiating an exchange program. The Foreign Countries Economics Institute (FCEI), belonging to the Economic Faculty at the University of St Petersburg, Russia and the National Teachers College of Business Education (SLHK) in Norway participated. In 1992 access was established by providing PCs, textbooks, and equipment for the Institute in St. Petersburg as proof of honest intentions. Next, a cross-cultural week with Norwegian and Russian students was undertaken to study the variations in the culture—not priority of cultural qualities. The SLHK students identified all Russians with the communistic system which was disliked and distrusted, and these attitudes distanced the FCEI students. St. Petersburg students, on the other hand, were having financial difficulties and were humiliated; therefore, most foreigners were looked on with skepticism. However, all of these students recognized their education as an instrument to make a better future. When the Norwegian students arrived in St. Petersburg in February 1993, the first days were used for social and cultural activities to establish confidence and "melting together," and the last days were devoted to working tasks. Communication was in English. The project was very successful with future projects already planned. The professor from FCEI, St. Petersburg State University, suggested that the main directions of Russian higher economic education must be diversification and networking.

Learning Through Business Contacts

. . A visit to a Norwegian internationally-oriented company provided another dimension to learning—the Alcatel Telecom Norway AS. This is the world's largest supplier of telecommunication equipment with manufacturing facilities in 25 countries and projects/activities in more than 100 countries. Areas of service include digital switching, rural telecommunications, defense communications, network management, and information security. A marketing representative at Alcatel served as host and offered human-interest stories about clients from China and elsewhere who had been trained in Oslo. Alcatel offered no training or courses in intercultural communications for their employees. Pride in country and Viking heritage was most apparent.

Learning Through Understandings

This international conference for Business Educators brought into focus many of the common problems that persist around the world--all educators needed additional funding for equipment and program improvement. Students, everywhere, tend to lack basic skills suitable for joining the labor force.

There were, however, a few threads that appeared to run through conversations and served to provide insights as to how to overcome some limitations. For example, international understandings were being sought through cultural and student exchanges. Additionally, educational reform

appeared to be wide-spread in an attempt to offer a better delivery system for all clients (students) so that the natural resources of human minds can be fully utilized.

Summary

Bridging the *International Learning Gap* is a continuous process; however, when one takes advantage of the opportunities to learn, personal experiences lessen the gap and bring added understanding. Speaking, first hand, with people representing many different countries, cultures, customs, and life experiences brings insights for personal and professional growth. Using these opportunities truly creates a bridge of learning. As educators, we must realize that our world is no longer our immediate space. It is the universe that is now accessible to all who are willing to create bridges.

J. A. Comedius (born in 1592) expressed appropriate sentiments when he wrote—

We all sit in a great theater of the world

Whatever may happen there concerns all of us

Back to the Future: The Continuing Odyssey in Business Education from a Qualitative Perspective

Clora Mae Baker

Southern Illinois University

For many years, Business Education researchers have used surveys and questionnaires as the principal method of collecting data. Business Education researchers have developed research questions, prepared instruments to collect data to answer the questions posited and reported findings. While a valid form of research and reporting, many researchers have compared the process to trying to capture a "three-dimensional world of nature on a black and white photograph." (Tesch, 1990, p. 6). In other words, many intertwined, tangential ideas have been omitted and *flattened*. With all of the challenges facing Business Education today, it is time that researchers look at the discipline through a different lens--qualitative research.

The purpose of this paper was to discuss the notions of using qualitative research methods as a means of furthering and enhancing research in Business Education. Qualitative research is certainly not a recent development. Qualitative research methods have been used by sociologists and anthropologists for well over 100 years. Qualitative research is an umbrella term; sometimes it is referred to as participant observation, in-depth interviewing, life history, field research, naturalistic, ethnography, case study, or descriptive research (Bogdan & Biklen, p. 2-3).

No matter what term is used, in the broader context, the important thing to remember is that the researcher is telling an in-depth story. Therein lies one major problem--qualitative research takes much longer, requires greater clarity of goals during design stages and cannot be analyzed by running a computer program (Berg, 1995, p. 2). Qualitative research does not unfold sequentially--much of the data collection can be equated with the branches of a tree. Several major branches (ideas) go in different directions and smaller branches grow out of the major branches. These smaller branches may provide the most information.

Some branches twist and turn in several directions; thus, data can be quite difficult to study. However, as the study unfolds, data is categorized and generalizations materialize, the researcher begins to see the multi-dimensionality of the situation. In an attempt to differentiate between quantitative and qualitative approaches, Dabbs (1982, cited in Berg, 1995) indicated that the notion of quality is essential to the nature of things. Quality referred to the what, how, when, and where of a thing--its essence and ambiance. Qualitative research referred to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things (Berg, 1995).

Actually, Business Education researchers can look at this type of research as a journey where ideas are constantly becoming visible during the research process. Qualitative researchers seek to describe and understand the processes that create the patterns of the human terrain. Just when you think you have arrived at the conclusion of the journey, an interesting idea may emerge which will direct your odyssey in a different direction.

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Conducting Successful Class Projects Over the Internet

Robert E. Beasley
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Introduction

Conducting class projects over the Internet allows students to cooperate with others of similar interests around the globe to answer important questions and solve real-world problems. Utilizing this global medium provides some distinct advantages over the way most class projects have been conducted traditionally. First, the Internet provides a more diverse group of project participants. These participants can be scattered throughout the world, yet their participation is almost as if they were in the same room. Second, these diverse audiences naturally bring with them to the project a more diverse set of cognitive abilities, skill levels, ideas, and beliefs. Third, the Internet provides an effective means of sharing a diverse set of tools, such as specialized spreadsheets or databases for compiling and analyzing the data collected by the participating classes. And fourth, because participants in these types of projects can be located in physically different parts of the world, with different latitudes and longitudes, cultures, economies, and governments, a more diverse set of data can be obtained. In this paper, the characteristics of successful global class projects, which can exploit these advantages, will be discussed.

Characteristics of Successful Class Projects

Five characteristics of successful class projects follow:

Topic

The range of possible topics is, of course, infinite and is only limited by one's imagination. However, in order for any project to gain sufficient participation, the topic must be interesting enough to gain the attention of a large number of potential participants. Thus, careful consideration of the topic must be given. Furthermore, the title of the project should reflect the topic and be written in such a way as to gain the attention of those searching for projects in which to participate. A short, descriptive title is best because it allows potential participants to quickly determine if the project is one in which they may be interested in investigating further.

Focus

Experience has also shown that, for a project to be successful, its focus must be on a common phenomenon that differs in some respect (Levin, Rogers, Waugh, and Smith, 1989). Since the Internet allows students from diverse backgrounds to participate in the same project, project developers should choose a topic in which the participants share something in common (e.g., food) but that differs in some important respect (e.g., staples, prices).

Orientation

It is also important that the project is goal-oriented as oppose to exchange-oriented. That is, there should be a purpose for conducting the project other than just to exchange messages with others over the Internet (such as with electronic pen pals). For example, in the **My Name is Different Project** (Beasley, 1993), each participating class of students was required to debate whether or not a young Chinese-American boy should change his Chinese name to an American equivalent. During the debate process, students were required to provide reasoned support for their arguments and then attempt to reach a consensus on the issue. Finally, if a consensus could not be reached, students were required to vote. The goal of this particular project was to provide a realistic exercise in reasoned debate and the democratic process.

Planning

Good planning is essential to the success of any class project conducted over the Internet. The goals and objectives of the project must be clearly and unambiguously articulated, keeping in mind the intended grade level(s) and prerequisite skills of the desired participants as well as the intended duration of the project (Rogers, 1994). The procedures to be followed at each participating site must also be clearly and unambiguously composed and in a form that can be easily shared with participating classes over the Internet (i.e., ASCII). Any in-class instructions, whether for teachers or students, should be thorough to ensure consistent

participation across classrooms. This is particularly important if the project to be conducted is some kind of scientific undertaking. In the **Noon Observation Project,** students were required to measure the length of the shadow cast by the sun at noontime on a specific day in order to determine the circumference of the earth (Levin, Rogers, Waugh, and Smith, 1989). What is expected of the participants at the end of the project should also be clearly articulated. Project designers should make sure to convey to all participants examples of the kind of final products to be sent to the project moderator at the conclusion of the project as well as a description of what participants will receive as a result of the project (e.g., compiled results from all participating sites, conclusions).

Labor

In order for the project to be attractive to teachers, many of whom are already overly busy; it should not appear that the project is so involved that it could be extremely time-consuming. If the project description makes a teacher feel that participating in such a project will heap even more work on them, few will wish to participate. The project developer must make sure that the procedures and tasks to be performed by the teachers are not too labor-intensive. It should appear to be fun for them and not an additional burden.

Time Frame

Stapleton, Levin, and Waugh (1991) describe six stages of successful networking projects. These include the proposal stage, the refinement stage, the organization stage, the pursuit stage, the wrap-up stage, and the publication stage. Adherence to the time-frame allotted for each activity in the project, from the organization stage (Stage 3) through the publication stage (Stage 6), is essential to the success of the project for two reasons. First, the project moderator must coordinate the efforts of potentially hundreds of participating sites. If some of these sites do not meet their activity deadlines, the project moderator must exert additional effort to urge these participants to finish their activities. At the same time, other sites may be waiting for intermediate results, such as progress reports. Second, if all participating sites do not finish the project on schedule, the results of the project may be anti-climactic, especially for those participants who finished their part of the project on time. For these reasons, it is important to develop a realistic time frame for each activity to be performed during the project--a time frame that provides a flexible window for each activity, but at the same time allows the project to move ahead at a pace which does not produce an atmosphere of boredom.

Activities

Activities in which students are to participate should be classroom centered as much as possible. If a project is initiated in which the majority of the work is to be done outside the classroom, such as at home on a particular night, students may forget to do their assignment or, for some reason, may not be able to complete it. Designing a project in which the activities are classroom centered also permits poorer students to experience good peer participation models and allows students having difficulty to get help from the teacher. In addition, conducting the activities in the classroom ensures that students have a shared context of the project, a context in which cooperative learning is fostered. Finally, when project activities are classroom centered, the teacher can more easily integrate the project into the ongoing curriculum.

Students should also be given the opportunity to experience the full range of activities performed by those conducting analogous projects in the real world. For example, if the purpose of the project is to collect data on some interesting phenomenon (e.g., access to personal computers in the classroom, applications used), students should participate in all steps of the study just as if they were researchers themselves. These steps might include such activities as designing the data collection form, collecting the data, analyzing the data, interpreting and writing up the results, and finally submitting a paper for peer review, publication, and debate.

Controversy

In some cases, it may be desirable to inject an element of controversy into the project. This is usually done by posing some kind of *big question*, as it has been called. For example, in the **My Name is Different Project**, the question was posed, *should Chang-Lee change his name to Charlie?* In a climate in which cultural heritage is of great interest, this question proved to generate a lively exchange of ideas and rationales on the subject. However, the topic should not be too controversial. Judgment should be exercised in choosing the right amount of controversy to introduce into the project. A topic that is too controversial may serve to divide participants and create an atmosphere of frustration and hostility instead of an atmosphere of cooperation.

Conclusions

Using the Internet to conduct global class projects has some very distinct advantages over the way class projects have been conducted in the past. In particular, the Internet provides a more diverse group of project participants who come to

the project with a more diverse set of abilities, skills, ideas, and beliefs. Additionally, the Internet makes access to a diverse set of tools more convenient and provides a more diverse set of data. By following the guidelines presented in this paper, projects can be designed that exploit these advantages as well as provide a fun and enriching experience for all who participate.

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The Need for Ethics Instruction at the High School Level

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Introduction

According to a nationwide study by Touche, Rossi & Co. (Nappi, 1990, p. 177), ethics in business is one of the most serious problems facing corporate America today. In fact, unethical behavior and major scandals in corporate America prompted the AACSB (American Assembly of Collegiate Schools of Business) to modify its curriculum to include "ethical considerations" within its common body of knowledge requirements. Colleges and universities are not the only institutions where ethics education is a concern. Ethical behavior needs to be instilled in the student prior to college, a case which is supported by Wynd (1989). Nappi (1990,p. 178) further supports this argument when he suggests, "It is imperative that the study of ethics be presented in the context of the student's entire academic experience–at every level of education."

Schools can reinforce moral values and help students with ethical decision-making skills early in their schooling. These skills should be well developed by the time these students graduate from high school. "Before leaving high school, students should have acquired not only knowledge and skills to enhance their capacity to perceive and think clearly about moral issues, but also the ability to put ethical beliefs into practice (Nappi, 1990, p.177).

Why Teach Ethics at the High School Level

High school business teachers have a responsibility to guide sound ethical behavior in their business classes. The high school business curriculum is an excellent vehicle for reinforcing this behavior. Some critics feel that ethics cannot be taught and others believe this should be left to the business schools and universities. There are several reasons for the need for ethics education at the high school level. They are:

- Many high school business students may not receive formal business ethics training following graduation.
- Some high school graduates may create and manage their own business without further formal education.
- For each person acting counter to moral standards, some stood by and did nothing. Those that stood by may well be those employees who never entered college and who were never exposed to a college ethics course.
- Some high school graduates may be employed by a firm that encourages participative management thus playing an active part in decision-making.

Ethics Can Be Taught at the High School Level

The primary function of a course in ethics is to teach ethical analysis. Although ethical analysis may not lead to a single right or just solution to a particular managerial dilemma, it can lead to decisions that can be clearly seen to be more right or more just than other decisions (Hosmer, 1988). The purpose of ethics instruction then is to help the student learn to make wiser decisions.

Model Marking the Association of Elements of Ethical Decision-Making

Based on a synthesis of the research relating to ethical decision-making, a design was developed to explain how a businessperson arrives at his or her ethical/unethical behavior using ethical analysis. This design could be used as an introduction to ethics and may help the high school student see the significance of ethics instruction. A written explanation of the model is as follows:

> *Ethical decision-making* begins with values, values that have formed through culture, education, experience, and principles. These values are a basis for the formation of ethical standards.
>
> An *ethical dilemma* arises where we have to call on our ethical standards for assistance. This ethical dilemma very often falls in that *grey area* of decision-making, where there is no *right* or *wrong* answer.

At this time, a moral judgment about this dilemma must be made based on our ethical standards. The result is a behavior which is either *ethical* or *unethical*.

Seven-Step Ethical Reasoning Process.

Ethical dilemmas, which should be used extensively in teaching ethical awareness, could be

examined by using the seven-step process developed by Arthur Anderson & Co. to assist business students in understanding and practicing the moral reasoning skills necessary to be successful and effective in today's business environment.

SEVEN-STEP ETHICAL REASONING PROCESS

Arthur Anderson & Co., SC

When facing an ethical dilemma, ask yourself the following questions:

- What are the facts?
- What are the ethical issues?
- Who are the stakeholders?
- What are the alternatives?
- What are the consequences for each alternative, and how are stakeholders affected?
- Are there any practical constraints to be considered?
- What action should be taken?

The Need to Teach High School Ethics

Does the high school business curriculum today include ethics education, and are the high school Business Teachers effectively instructing the students in ethical awareness? This is something that Business Educators, need to research. A study was recently completed comparing the ethical standards of Business Education students and business administration students at seven state universities in Kentucky (Brown, 1994). One of the questions that was included in the survey concerned the extent to which students reported receiving high school ethics instruction. The table below presents the responses to this question.

Seventy-two of the 75 potential business teachers responded to this item, and 150 of the 153 potential businesspersons responded. Noteworthy of reporting is the large percentage of students who reported that they did not receive any ethics instruction in high school (over 40 percent).

Conclusion

High school ethics instruction is crucial to developing good ethical decision making skills. Who should provide ethics instruction? Business education teachers provide education for business and education about business. Ethics education is about business, therefore, the ideal choice for providing ethics instruction is Business Education teachers.

Table

EXTENT OF HIGH SCHOOL ETHICS INSTRUCTION

Degree	Business Education Students	Business Administration Students
Extensive	5 (6.9%)	6 (4.0%)
Some	38 (52.8%)	80 (53.3%)
None	29 (40.3%)	64 (42.7%)

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Incorporating Industry-Based Skill Standards into High School Secretarial Programs

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Over the past ten years, concern has developed for the condition of the American economy, which has moved business and education leaders in the United States to acknowledge the interdependence between education and the economy. A major outcome of this concern has been the development and implementation of standards including certification of occupational skills and competencies (Warnat, 1992) for workforce preparation. For example, one outcome of this concern about education was the SCANS report which defined skills needed for employment. Consequently, business and industry, education, and government have recognized the need to provide worker preparation that addresses current and anticipated occupational workforce needs. Under the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 (U. S. Congress, 1990) matching grant funds have been mandated for implementing voluntary industry-based skill standards. These matching grants have implications for greater accountability in business and other vocational education programs. Skill standards are also related integrally to the Goals 2000: Educate America Act (U. S. Congress, 1994) which incorporates policy requirements for the ensuring success of voluntary industry-based skill standards.

Labor Secretary Robert Reich argues that skills standards can aid communication among employers, educators, trainers, and workers regarding specific skill level and needs. He said, "There is a disconnect between the skills people have and the skills the economy requires" (U. S. Department of Labor, 1993). Skill standards identify the knowledge, skill, and level of ability an individual needs to perform successfully in the workplace. Thus, skill standards ensure a common, standardized system for classifying and describing the skills needed for particular occupations and the skills possessed by individual workers (U. S. Department of Labor, 1993).

Business Occupation Skills Standards Being Developed

Twenty-two national trade associations have received matching grants from the U. S. Departments of Labor and Education to develop and implement national voluntary skill standards and certification in their trade or industry. The American Electronics Association (AEA) (AEA, 1994) accepted matching funds and has developed such competencies in three areas. AEA posits that "skill standards provide concrete examples of the skills needed in today's workplace and give employers, workers, educators, and trainers a common language so they can communicate better with each other." Standards can help educators know how and what to teach and give noncollege bound young people realistic, but challenging goals, to work toward. When AEA developed secretarial and administrative/ information support services skill standards and competencies, AEA sought to determine what kind of skills these workers need to be the best at their jobs. A key purpose was to provide administrative and organizational assistance to internal and external customers. AEA also identified the following six competencies as important for secretarial and administrative/information support service workers: (a) identify internal and external customer needs and plan work activities, (b) manage and schedule activities to achieve objectives, (c) manage resources, (d) develop, implement, and evaluate work processes and procedures, (e) generate and maintain documents and information, and (f) initiate and facilitate communication.

Professional Secretaries International (PSI) and the Vocational Technical Education Consortium of States (VTECS) are also working together to establish national skill standards for administrative and executive support professionals. Their purpose is to identify the skills and knowledge necessary to establish the standard of performance for administrative and executive support professionals such as secretaries, executive assistants, medical secretaries, and information specialists. Their objective is to (a) develop a set of core skill standards that apply to

workers in all administrative support occupations; (b) develop standards for specific skills performed by legal, medical and executive secretaries; (c) identify academic and workplace behavior skills that are critical to the performance of secretaries; and (d) design and provide an assessment program that can be used to validate the performance of trained secretaries for employment. A national survey will be developed and sent to 500 experienced secretaries who are members of PSI. The survey will be analyzed by a Technical Advisory Committee which consists of secretaries, supervisors and employers of secretaries, educational representatives, and PSI representatives.

Implications for Implementing National Business Education and Skills Standards

Development of national business and education industry-based skills standards in office occupations has a number of implications for business education. Moneys provided through the matching Federal grant program could help industry leaders and Business Educators collaborate in training people to work in office occupations of the future. Accepting the matching Federal grants with the challenge to create entry-level office standards, invokes opportunities for industry and Business Educators to work together to close the gaps as to what constitutes acceptable on-the-job standards. These gaps are characteristic of the U. S. economy and result from fragmentation that has existed between education and employment. Both industry and education can use these skill standards to update education and training programs and continuously evaluate curriculum standards to make sure criteria proposed by industry-based skills standards are being met. Ongoing evaluation of business education programs is important in defining the quality of programs and in identifying and strengthening deficiencies in these programs. Such standards also help establish greater accountability for students, teachers, business programs, and schools.

Conclusion

Developing industry-based skills standards and incorporating these into business education programs assures business education graduates of being competitive as they seek administrative support positions. Also anticipated would be higher wages and enhanced job security for those completing business education programs. Further, business education graduates will have portable credentials that are important in today's information-oriented and highly mobile society.

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School-To-Work Integration: Developing the Future Workforce

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Today, Americans must prepare for the future. Americans are living in a technological revolution, where the world is changing rapidly; and nowhere is this change more obvious than in the job market. Within the next few years, many of our graduates will be filling jobs that cannot be identified or even imagined today. Jobs will be available for those who are prepared. Our challenge as educators is to prepare our students to meet the challenges of the future. Education does not have the resources to do this job alone. To make schools partners in technology, to move schools "from blackboards to computer chips," it is estimated that the cost to upgrade American schools technologically would be close to $12 billion. Therefore, American educators must foster more and stronger partnerships with businesses, schools, community-based organizations, and state and local governments.

Over the last several years, a number of education/business partnership initiatives have evolved. Among these are the School-to-Work Opportunities Act, Goals 2000 (Educate America Act), Tech Prep, Career Academies, and Youth Apprenticeships. Other time-honored programs that serve a similar need and continue to strengthen the workforce are Cooperative Education, internship programs, and other types of experiential learning opportunities. Such school-to-work transition programs prepare students for good-paying jobs. In so doing, these school-to-work transition programs help to (1) raise the educational standards for all students, (2) ensure that students build a stronger academic base, and (3) to ensure that students are better prepared for learning throughout life. Such programs prepare our country to compete in a global economy.

The most recent efforts to meet the workforce preparedness challenge is the School-to-Work Opportunities Act (H.R. 2884, signed by the President on May 4, 1994). HR 2884 is an innovative new bill passed by Congress last year to help our students experience an orderly transition between high school and work. The Act establishes a national framework to broaden the educational, career, and economic opport-unities for all youth through partnerships between businesses, schools, community-based organ-izations, and state and local governments. The focus of this bill is to encourage local schools and businesses to develop partnerships that will provide work experiences for students and will expose them to career opportunities. This is one means of helping students to develop the knowledge, values, expertise, and work ethics they need to be prepared for the future workforce.

Benefits from work-based learning partnerships accrue not only to students, but employers also receive many advantages by working with students in their personal and professional development. Partnerships are cost effective for employers in terms of recruitment, advertising, and related costs. Partnerships result in increased productivity, the early identification and training of potential future employees, and better employee retention. Employers build good will in their communities, fulfill their social responsibility, and share responsibility for the education and training of their future employees.

Cooperative education or Co-op is probably the best known of any of these education/business partnership programs. Co-op has been around at least since 1906 as a formal, structured program in the United States. Co-op is a three-way partnership, which includes the student, the employer, and the school that links these elements together. Co-op enables students to gain practical, career-related work experience while they are attending school.

Work-based learning programs, such as Co-op, help prepare students for the complexities and demands of the world of work. Workplace competencies provide students with the ability to manage resources, work productively with others, acquire and use information, understand and master systems, and to work with technologies. The integration of school-based and work-based learning transition services provides support for career development. Through these connecting activities between school and work, students should be provided with career counseling and receive labor market information to help them with

career decision making. Community service partnerships help prepare students for citizenship roles as well. For a future workforce that is fully prepared, educators must continue to strengthen the integration of academic and vocational learning and the involvement of employers in the design and delivery of our students' education.

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Preparing a Business Plan: Entrepreneur Teaching Strategy

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Introduction

Evidence exists for the need to integrate higher-order thinking skills into the secondary curriculum. Higher-order skills include the abilities to reason and think critically, to solve problems and make effective decisions, and to utilize one's creativity and imagination in work settings. Boyer (1984) has recommended that all high school graduates should have the ability to bring together information, organize their thoughts, reach conclusions, and use knowledge wisely. Further, Boyer has contended that a top priority of secondary education must be to develop the capacity to think critically. Pratzner and Russell (1984) found that to function effectively in work settings, both workers and managers need problem-solving skills. And, the SCANS (1991) report, published by the U.S. Department of Labor, calls for students to be able to analyze, synthesize, and evaluate new and unfamiliar problems.

Marketing Educator's Involvement

How can marketing educators develop higher order thinking skills in students? One of the best ways is to develop those skills in the context of the subject matter that students are studying. Students must be provided with instruction which regularly challenges them to practice and demonstrate higher-order thinking requiring them to apply, synthesize, or evaluate information. Higher-order thinking occurs when students are able to use what they learn to deal with real-world problems and situations. Generating higher-order thinking activities require several steps. They include:

- Developing objectives that reflect higher order thinking.
- Designing assignments to address objectives which encourage higher-order thinking. Such assignments are more difficult to design, but typical recall assignments do little to cause students to learn information so they can put knowledge to work.
- Testing students at higher levels of cognition. Assessments must gauge students' ability to solve problems, think creatively, reason and make decisions.

Students in Entrepreneurship courses particularly will need to acquire higher-order thinking skills. As potential business owners, these students will need to do more than list, identify, and describe information–they must be able to apply, analyze, synthesize, and evaluate information. Developing attitudes and skills that allow students to apply knowledge in real-world situations will build future entrepreneurs. Students should be able to learn through a variety of activities such as simulations, on-the-job experiences, team activities, and other projects in which they are provided a set of facts, events, or issues related to a problem. By thinking logically and creatively, either independently or with others, students are required to identify suitable alternatives and reach viable solutions. What students practice will remain with them longer than what they only hear or read.

The Business Plan

Developing a business plan is probably the most crucial concept that potential entrepreneurs will need. In a nationwide survey of Entrepreneurship courses (Wilson, 1991), the business plan was listed by teachers as one of the most important concepts taught. These teachers also indicated that they devoted more time to this concept than to any other single topic. When teaching students to develop a business plan, learning experiences must be structured to provide them with opportunities to acquire needed skills before starting their plans. Data suggest (Fritz, 1993) that some students may lack the developmental readiness to immediately begin learning at higher levels. Guided practice will be crucial for these students. All high school students will probably need continual guidance on how to write a business plan, what to include in the plan, and where to obtain necessary data.

Preparing students to develop a business plan should not present "one" way of solving problems. Students need to be involved in activities where they are allowed to choose alternative strategies and analyze the consequences of those decisions. Instruction must encourage creativity, one of the

most significant traits of successful entrepreneurs. More than classroom lectures must be provided; Entrepreneurship cannot simply be taught by assigning readings and questions in a textbook. Course work must be challenging and relevant, and students must see how their lessons are connected to the real world. By integrating activities which develop higher-order thinking skills into the Entrepreneurship curriculum, the quality of instruction will be greatly enhanced.

Conclusion

The acquisition of critical thinking and problem-solving abilities and the development of creativity is not possible through memorization and information recall. Teachers cannot simply provide students with directions in making effective decisions, give them routine exercises to complete, and expect these skills to be acquired. Therefore, the selection of appropriate instructional methods is crucial in developing students' higher-order thinking skills.

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DECA: An Effective Tool for Overcoming Today's Classroom Challenges

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Marketing Education coordinators/DECA advisors face many challenges every day in the classroom as they prepare students for success. For many years, there have been challenges to teaching and training young people, whether it be size of the class, student apathy, or even that annoying announcement in the middle of class. Classroom teachers today know that these are trivial challenges when compared to today's school environment.

What is so different now, or what is at least more prevalent versus a short time ago? Students--who may not be getting enough food at home; may not see their parents/guardians for days at a time; are getting pregnant; are already drug addicts or alcoholics; are expected to go to school and perform when they have to take care of younger brothers and sisters--are realistic examples of today's environment. Perhaps most alarming, did you think ten years ago that young children would be shot for a pair of tennis shoes?

For many of us, this has been reality! Should Marketing Educators give up and quit? ABSOLUTELY NOT! Is there anything that can help us? ABSOLUTELY! While teachers cannot control everything that goes on in and outside of school, teachers can control most of what happens in their classroom. DECA, along with caring and support for young people, can make an immeasurable difference in the lives of students. DECA activities can make a major difference in the quality of teaching, and in the quality of the work environment.

Now the question is...*How does DECA help improve student learning, teacher working conditions, and the overall classroom environment? Why is DECA a necessary part of a Marketing Education program?* Without stealing the thunder of my presentation, here is how DECA can affect your classroom.

Who Were the Students:

On average, only about 15% of the students are from a "traditional" family environment. Individual situations included various types of abuse, drug and alcohol problems, teenage pregnancy, runaways, and unclean living environments.

Personal Teaching Approach

Extending from my basic teaching philosophy of helping young people, a fundamental decision was to open myself and my time to the personal lives of students. After visiting with students in their home, students became aware that they could talk to me about anything. By my understanding what the students left when coming to school and what environment the students returned to after the bell rang, was time and energy well spent.

DECA As An Instructional Tool

A fundamental understanding is that DECA is not a program, but rather an instructional tool that can help you implement your program curriculum. DECA should complement, not control, your instruction. After determining what to teach, your basic challenge as a teacher is to (1) find the most effective way to gain the interest of students despite their personal concerns, (2) deliver the important information with consideration for retention, (3) provide an outside avenue for teacher and self-evaluation, and (4) offer real-world experiences that are interesting and relative to their career interests.

- **DECA's Leadership Opportunities** (local, state, national)...provide motivation through increased self-esteem; encourage responsible behavior through the assignment of specific duties.
- **DECA's Competitive Events Program**... motivates students through a friendly competitive environment and rewards of travel, scholarships, trophies, etc.; offers teacher and self-evaluation; provides in-class individual and team projects; encourages students to explore career opportunities; offers unique social settings, recognizes student achievement.
- **DECA Related Materials**...provides instructional materials targeted toward leadership, general marketing, and specific

career activities; allows for and encourages student initiative toward learning.

Ask Yourself a Few Questions?

- Will students be motivated by opportunities to travel, meet other students, and receive trophies, scholarships, and other awards?
- Will students be motivated by an increased self-esteem?
- Will students be motivated by classroom projects and team activities that THEY choose in relation to their career interests?
- Will more motivated students lead to more learning, a better teaching situation for me, and an improved classroom environment?
- Will an extra resource for instructional materials help keep my teaching up-to-date and interesting for both me and my students?
- Will demonstrations and recognition of student success lead to a more secure position for me in my school system?

If you answered YES to any of these, then DECA is a must-use tool for you. Let up prove together that DECA is an effective tool for overcoming today's classroom challenges

International Telecommunications: The Key to the Future in Business and Marketing Education

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As a new millennium approaches, education finds itself in the midst of a fast changing world. With new transportation and communication technologies; our students, who are the workforce of the future, will face the challenge of competing in a global economy. To meet this challenge, the Business and Marketing classroom, at all levels, must take on a *global perspective*. These classrooms cannot limit the teaching of Business and Marketing courses solely to American business ideas, geography, and lifestyles. Education for and about business must be present from a global perspective. Thus, our Business and Marketing Education programs must realign their curricula to prepare workers and consumers for the world beyond our nation's borders. Knowledge of how other countries activities and actions affect us and how American activities and actions affect the rest of the world is needed. The challenge is to integrate international business concepts and procedures into curricula so that students are prepared for the global society in which they will work and live.

Impact on Business and Marketing Education

Business and Marketing Education students need to know about three underlying factors to deal with this globalization. The factors are: (1) to recognize cultural differences, (2) to adapt to working with people of other cultures, and (3) to expand our skills and knowledge on an international level. What better place to discuss this challenge than the Business and Marketing Education classroom. Business and Marketing Education is (1) education for business, (2) education about business, and (3) education for the workplace. Therefore, in order to be able to work effectively in a global economy, Business and Marketing Educators must provide instructional activities that teach students about internal perspectives that affect social, political, and cultural, and economic relations.

Telecommunication

Many of these underlying principles can be accomplished through telecommunications. Most of the equipment needed is already available in the Business and Marketing classroom, but the key is innovation.

Telecommunication, an innovation vehicle, is the process of transmitting information over distance by electrical or electromagnetic means. There are four principle types of telecommunications systems available today: voice, data, message, and image. The Business and Marketing classroom can use one or all of these systems, depending upon the availability of the equipment, to globalize their classroom. A computer, communication software, modem, telephone line, and a host computer are needed to do telecommunications. In addition to the equipment, a little computer savvy and willingness to try something new is necessary.

Making the Connection

To accomplish the globalization of the classroom, making the *connection* is critical. A vast array of information services are available--one must do some research to learn what is best for his/her school situation. There is, however, a great deal of published information available to make the task easier. The major computer magazines consistently run feature articles on all facets of telecommunications. For example, the *March 15, 1994* issue of **PC Magazine**, contains an excellent description of the major on-line services and a special feature on the Internet. Further, a visit to the bookstore will provide quite an exhibit of books on the topic of telecommunications. Many of the major publishing companies provide textbooks on the topic, and daily newspapers consistently have articles on the *Information Highway*.

Projects for the Information Highway

Projects that can be completed via telecommunications are virtually unlimited

Telecommunication related learning activities can be easily incorporated into any subject in the Business and Marketing curriculum. Listed below are some ideas that could be expanded. Some of these ideas lend themselves to individualized projects while others could be an entire unit depending upon the class such as subject, class size, or composition of learning abilities demonstrated by students.

- Current events--use on-line database for international news.
- Free enterprise--research and discuss topics about creating a business.
- Travel brochure--assemble a local brochure and exchange with others.
- Local history--compile a local history and exchange.
- Issues--write papers on issues of concern to young people and let students in other countries critique them.
- Create resumes and exchange--students critique the resumes.
- Create a business letter requesting products or services available locally, students in other areas serve as service agents and respond.
- Environmental issues--discuss environmental issues of concern and exchange with students in other parts of the world for comparison.
- News articles--write a news article of interest or concern and exchange with students in a foreign country. Students in computer classes could do a newsletter with articles received.
- Technology and Society--include topics on the use of computer, telecommunication, telecomuting, telelearning, etc.
- Famous people--compile a list of people they consider to be famous and why, and exchange the list with others to compare or contrast the differences in the list.
- World citizens--students discuss issues of global concern and suggest solutions.
- School Lunch--analysis of school lunches and exchange data with other schools.
- Job Search--research employment opportunities in their area and exchange with students around the world.

Conclusion

To prepare students for the global marketplace students must be taught about world culture, economics, and an entrepreneurial spirit of understanding and cooperation. Students have at their fingertips the ability to talk in *real-time* with someone in Japan, send a short story to a group of people who will critique it for the sheer pleasure of doing so, see if a computer is turned on in Singapore, and find out if someone happens to be sitting in front of their computer in Australia, all within thirty minutes.

The greatest strength of telecommunications lies in its ability to bring people together regardless of their geographic locations. Across international boundaries, people are sharing information and ideas with others. What better way to learn about other cultural and how people think and feel than to actually communicate with them. With this kind of global cooperation and communications, our students can expand their skills and knowledge on an international level.

If you are not teaching or using telecommunications in the Business and Marketing Education classrooms, whether it be at the high school, community college, or the university level, you are depriving yourself and your students. A wonderful opportunity to prepare students for the new millennium and a global economy await. Your challenge, if you choose to accept, is to incorporate the technology into your classroom to prepare your students to compete in a global economy.

If You Could See What I See: Marketing Videophone Technology

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University of Maryland Eastern Shore
&
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Introduction

New technical developments in telecommunications such as facsimile machines, electronic mail, teleconferencing, voice mail, voice recognition systems, video conferencing, and (more recently), the videophone, have resulted in a technological revolution. The once intriguing notion of videophone technology is fast becoming a reality. The videophone is now entering world markets and is changing the way businesses operate. According to Curtis J. Crawford, vice-president AT&T Microelectronics (Park, 1993), the impact that video products will have on businesses will be seen as more attractive than personal computers once did in the 1980s. Crawford (Park, 1993) noted that businesses will take the lead in creating a new digital video market. As a result, business meetings will become easier to conduct, more cost-efficient, and more productive. In addition to saving money and increasing productivity, business people will be able to share information with their clients by displaying video images over telephone lines for business presentations, as opposed to the more traditional presentation methods. However, business executives may not be so appreciative of this new technology. Fox (1993a, p.29) notes that the biggest challenge of all is "to convince executives that they must stay in a cold winter's office instead of traveling first class to a hotel with a large golf course set in a sunny climate." Additionally, Crawford believes that once video communication technology becomes more commonly used in the workplace, more consumers will begin to purchase videophones to be used in their own homes (Park, 1993).

So, why are not videophones accepted with open arms by consumers? Maybe its because "technical innovations are not always diffused and adopted rapidly, even when the innovation has obvious and proven advantages" (Rogers, 1983, p. 243. Newton (1994) believes that videophone products sold by telephone companies are a novelty with little practical significance. Additionally, he explains that the reason sales have been down is because consumers believe that the introductory price for videophones is too expensive. Other skeptics claim that the videophone is just another gimmick or only to be used by "technology junkies." Optimists, however, believe that videophone technology will be perceived by many businesses as the wave of the future. But, in order for videophone technology to successfully progress, researchers must overcome some technological barriers.

Shortcomings

There are a number of shortcomings associated with videophone technology. They include: the quality of normal transmission lines, video compression technology, videophone compatibility, and quality of the videophone display. One shortcoming associated with videophone technology is the quality of transmission over normal telephone lines. When an image is transmitted over normal lines it produces a blurred, jumpy image. However, as fiber-optic lines become more prevalent and the videophone technology improves, the quality of the image will also improve (Fox 1993a). Another shortcoming involves compression technology. Currently most videophones display slow-motion video transmission with repeated delays from frame-to-frame. Yet, as the frame rate increases, compression and image delays become virtually nonexistent, consumers will begin to find these products more appealing (Park, 1993).

As with the emergence of facsimile machines in the 1980s, the problem of compatibility between different facsimile products is also evident with the current videophone systems that are sold on the market today. In order for videophone systems to operate effectively, the systems must be compatible (Quain, 1994). Companies such as AT&T and MCI, large North American telephone

market suppliers, and British Telecom, a large telephone market supplier in Europe, have been researching videophone technology for years, and each company has spent millions of dollars developing its own videophone system. Further, Fox (1993b) notes that the Dutch telecommunications authority has tried to negotiate with all parties involved; however, it appears that no party is willing to change their position and develop compatible machines.

Lastly, all videophones that are currently available for business and consumer use display a jerky, fuzzy-like picture. If a person makes any movement in front of the camera, a blurred picture will result (Fox, 1993a). Moreover, the amount of direct sunlight that is projected onto the screen makes for difficult viewing. While some screens can be controlled by adjusting the color and contrast, the quality of the picture can be greatly improved by sitting in a well-lighted room at a distance of no more than two feet from the camera. Also, it is important that the user be aware of their position in relation to the camera on the videophone when making a call. Today's videophones generally give the user only two viewing options, close-ups and wide-angles (Colby 1991a; Quain, 1994).

Marketing Videophones

When marketing videophone technology, one must present a clear concept. Currently, companies who manufacture videophone products have not identified distinct markets. As the videophone market increases, other markets may suffer as result of this technology (i.e., the travel industry). Fox (1993a) notes that the benefits of new developments in digital technology are causing business executives to rethink their priorities before traveling and attending conferences. Thus, videophones will likely contribute to the continuing trend toward less travel for business executives in the near future.

Potential Markets

Some potential markets for videophone technology include:

- *The hospitality industry*. Videophones are being mass marketed in major hotels around the world (Fox, 1993a). Look for an increasing demand for videophone products in the hotel industry.
- *The younger MTV generation viewers*. Today's youths are exposed to video technology everyday, however, primarily as a form of entertainment. Therefore, large videophone suppliers must focus their advertising on presenting a product that will be both useful and entertaining.
- *Grandparents*. Grandparents will travel less in the future. Instead of traveling hundreds of miles to see their grand children, it will be more convenient for them to see their grand children more often simply by calling.
- *The hearing impaired*. With the use of a videophone product, people with hearing disabilities now will be able to communicate through sign language using videophones.
- *The medical profession*. People in the medical profession will be able to benefit from using videophone technology. For example, doctors will be able to take x-rays of patients and send the film to hospitals to be examined immediately via videophone.

Conclusion

Videophone technology is still in its infancy and is not without its problems; however, new innovations are already taking form in the videophone industry. For example, researchers at the University of Edinburgh in Scotland have developed a video camera-on-a-chip with lenses no bigger than a match head. This 8 mm-square chip will have a significant impact on the videophone market (Port, 1991). This small chip sees digitally right from the start of the transmission without having to record a picture in analog and then digitize it. Not only is the chip extremely small but also inexpensive. The researchers believe that this will create a potential $10 million dollar market within five years (Port, 1991). The Japanese are currently using videophones for computer dating services. According to Thornton (1993), videophones will be one product that is expected to be of Japanese demand.

Even though the present videophone market is small, the potential will become more realized as new innovations arise and the technology improves. Videophones are not a passing trend; expect them to become more prevalent in the near future.

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How Non-School Experiences Prepare Students for High Performance Education and Work Tasks

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School-to-work transition, TECH PREP, youth apprenticeship, and other educational reforms are likely to be effective more by chance than design until they are based on sound learning theory. So far, this component is sadly missing. The need to use learning theory is important because rising educational standards and high performance tasks demand specialized psychological and emotional resources. Students who have these resources can meet task demands; those who do not are candidates for non-performance. Unfortunately, schools often have little influence on the formation or development of these psychological and emotional resources. Few question that this situation needs to change.

This message is important for business and marketing educators because a large share of future employment in high performance jobs will be in these categories. However, unless the influence of everyday life outside the school is taken into account, the educational impact of these programs could be difficult to document. In the future, educators will be expected to fill gaps in students' lives that affect their *educational performance*. The most important gap may be information processing skills.

In the past, educators often associated good performance with taking a particular class or subject. A different story emerges, though, when performance is divided into two parts—process skill and content skill. Process skill indicates *how* students meet a task demand. Until learning is advanced, this skill is not tested. Teaching and learning that focuses on the memorization of isolated knowledge, for example, does not put a demand on a student's information processing skills.

An example that involves higher-order problem solving skill illustrates this point. These tasks require students to use restructuring skill in their thinking. This skill allows people to gain a different perspective or insight on an idea without assistance and is important to the transfer of knowledge. Up to 75% of secondary students do not have this skill. Only 10-15% can use restructuring skill as intended—without teacher support. Students who do not use restructuring skill do not actually meet a key task demand in advanced problem solving.

Restructuring skill is a personality trait that gradually develops outside the school. It is not an isolated ability. It is part of a finely woven network of values, skills, and interests. Those who do not have it may use a chain-link reasoning style. Students who use restructuring skill are likely to be active and participative learners. Those who use a chain-link style have a more passive learning style.

To become good candidates for high performance tasks and careers, though, students who lack good restructuring skill may also need its related attributes. Some must learn to value complex mental tasks, to think for themselves, to persist against frustration, and to meet high performance standards. The presence or non-presence of these attitudes reveals a student's non-school developmental experiences.

By the time they are approximately 16 years old, students have stable personality traits that have an impact on their thinking and learning behavior. These patterns are strong and difficult to modify. Consequently, the impact of poverty, latch-key status, and gender bias can cause students to be ill-prepared for a high performance workplace. More than ever, vocational educators need to know how to use teaching methods and instructional supports to fill gaps created by developmental experience. Indeed, vocational teaching may be the best avenue for some students to qualify for a high performance career.

The challenge to business and marketing education is to have an impact on learning and workplace preparation that is not predicted by such non-school factors as gender and socio-economic status. So far, little progress has been made in this area. To reverse this trend, the starting point is to understand how non-school experiences mold the learning behavior of each student and develop useful strategies to prepare business and marketing students for high performance careers.

TQM and TQE: It's an Attitude!

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What is Total Quality Management (TQM)? Remember when you asked your parents why you had to finish your homework before you went to your friend's house? Did they say, "because I told you so!"? Remember in the movies when the private in the Army questioned his commanding officer about a decision only to hear the words, "that is an order, private!"? TQM, and most recently Total Quality Education (TQE), is a way for everybody to have a say is decision making.

Employees giving their input into the management decisions of a company have been taboo for decades and decades. This trend seems to be changing, though. Through the work of William Edwards Deming and the total quality management concept, employee morale and most importantly, quality has improved (Kolberg and Smith, 1992). TQM allows all workers involved in production to have a say in daily functions of the business.

Management does not always have the right answers, sometimes the people who are actually doing the work have the best answers--why not ask them?

With this new wave of TQM comes a very similar term called TQE. TQE means involving all participants in the educational process, including students. It is time for education not to be so top-down--you do what I tell you to do or else! Education needs to be a total commitment by all persons involved in the education process. This includes teachers, parents, administrators, business leaders, and most importantly--students (Bostingl, 1992).

With TQE movement comes a shift in paradigms from teaching and testing to continuous learning and improvement. The following table lists some of these shifts from old paradigms to new paradigms.

OLD PARADIGM	NEW PARADIGM
Success is artificially limited to a few *winners*. All others are considered mediocre.	Unlimited, continuous improvement and success are the objectives of schooling.
Competition-based lessons are linear, consecutive segments of one communication.	Cooperation-based learning is like a spiral with energy directed toward continuous improve-ment.
School work is a task, not intended to bring joy to the worker.	School work should be challenging, meaningful, and invigorating.
Teachers are isolated from each other by time and space.	Teachers work together on school time to build success with each other and with a man-ageable number of students in a cohort group.
Teachers give information; students memorize it, then forget most of it.	Students learn from teachers, other students, community and other sources, and incorporate those learnings into their lives, applying their insights as appropriate to real-life challenges.

OLD PARADIGM	NEW PARADIGM
Parents as outsiders, often made to feel unwelcome, even if unintentionally.	Parents as partners, suppliers, and customers. They are an integral part of the student's progress from the very beginning through the end of the schooling process.
Business sometimes welcomed to *adopt* a school; kept as arm's length.	Businesses invited to become partners (secondary suppliers and customers) in the students' continuous progress, not for direct commercial gain.
Ultimate goal: Students as products of the school.	Ultimate goal: Students as their own products, continuously improving, getting better and better, and helping others to do the same.

Summary

TQE means total involvement. A TQE environment means that all persons should be consulted before decisions are made. Teachers, administrators, parents, industry leaders, and students should work together to achieve the goal of TQE -- continuous improvement. With TQE, there is no light at the end of the tunnel, because the tunnel never ends.

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Work-Based Curriculum: The Future for Business and Marketing Education

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Work-Based Learning?

The concept of work-based learning has become common place. Federal government agencies often use the term in policy adoptions and proposed legislation. Such policy and legislation indicate how all students should have work-based experiences. Included also is verbiage on the importance of integrated classroom-based learning with work-based learning. However, the concept of work-based learning does not have one well understood meaning. At least two different meanings can be argued. The definitions are:

> **Work-based Learning** (definition one): Learning experiences based in a work setting or simulated environment including apprenticeship, co-op, technical labs, OJT, etc. This is likely the more well-understood definition as it relates to making learning experiences similar to the actual work setting.
>
> **Work-based Learning** (definition two): Learning acquired from the beginning of one's schooling which reveals that people work in order to live. It is this second definition that rallies a call for a new mission in education.

Work-Based Learning and Business and Marketing Education?

Business and Marketing Education must support work-based learning for students to lead productive lives following school. Business and Marketing educators need to adopt a mission that prepares all students for further learning, citizenship, and productive employment. Business and Marketing students need to be prepared in all three of these areas because they are being prepared to enter a work-oriented society whose future is contingent upon employees with life-long learning skills.

Whether Business and Marketing Education educators believe their job includes preparing everyone for productive employment is debatable, but Business and Marketing teacher education institutions are the creators of educators who prepare teachers, counselors, and administrators to meet this challenge. Japan and many European countries have developed systems and national work forcepreparations policies to prepare Business and Marketing students for productive employment. Thus, Business and Marketing educators must become involved in work-based learning.

Paradigm Shifts Toward Work-Based Learning

The conversion to work-based learning necessitates that Business and Marketing educators make several paradigm shifts in how they view the role of Business and Marketing education and its relation to today's society. Work-based learning has a central focus of linking education and work into one world. Education and work are not two separate worlds–they combine to establish one world-life (Wirth, 1992). Business and Marketing educators must embrace this concept and dismiss the myth that two worlds still exist. Building partnerships with business, industry, labor, and government wherever possible will help Business and Marketing educators make this shift to thinking of one world.

One problem which may foster this two world-lives is that for too long; the term, human resource development, has been viewed as foreign and not applicable to education or educators. Business and Marketing educators must change how they view their role as human resource developers instead of disseminators of knowledge. Students would be viewed as "customers" if educators took on the role of human resource developers. And, this approach to students would transform the classroom into work-based learning integrated into the Business and Marketing education curriculum. After all, Business and Marketing educators do not produce *things* on a line or sell a service--Business and Marketing educators develop human resources.

Another factor associated with the two world-life is that most educators continue to espouse that a baccalaureate degree is the *only* route to success. The emphasis on 4-year college degrees is likely a direct result of educators traveling the university route themselves and not being acquainted with non-university career pathways. Business and Marketing educators should combat perpetuating the continued advocation that all students should pursue a baccalaureate degree and that any other form of postsecondary education attainment is something less. It is well known that at least 70% of the jobs by

the year 2000 will not require a 4-year college degree (Wirth, 1992).

The last paradigm shift will require an educational system that impartially prepares all students for productive lives regardless of their career directions. The dual-purpose system of preparing students for work or for college must end. Business and Marketing educators are in an excellent position to assist in terminating such dual tracking as vocational or academic; TECH PREP or college prep; and career bound or college bound. Business and Marketing educators can foster the idea of preparing students for the world of work.

Applying Work-Based Learning

Business and Marketing educators must initiate applied work-based learning strategies throughout their curricula. Shifting from a content-based curricula to applied work-based curricula will require a complete reversal in how Business and Marketing educators see their role as educators. When asked, most Business and Marketing educators would say that they teach accounting, keyboarding, selling, etc. Not many would say children, students or people. That mind set needs to be reversed.

In challenging Business and Marketing educators to prepare for such a role reversal, many will first ask *Why applied work-based learning?* There is no better response than well-documented, replicated research that consistently reveals people learn the least from hearing, the next to least by seeing, and a little more when combining seeing and hearing. But 80% of learning comes from experiencing and doing. A number of studies including **America's Choice** and the **SCANS Report** strongly support the conclusion that the lack of a connection between education and employment opportunities is the most hampering aspect of our education system. And, the studies further support work-based learning strategies by indicating that students should leave their educational experiences with the knowledge to make their way in the world.

Business and Marketing educators must teach with work in mind. The most effective way of learning is by placing learning objectives within a real environment rather than insisting that students first learn in the abstract what they will be expected to apply. Many studies as well as federal and state education initiatives emphasize how applied work-based modes of learning that connect schools and work. Business and Marketing educators can incorporate these ideas into their instructional program to prepare their students for the world of work.

Every possible effort must be provided for Business and Marketing classroom teachers to change and recognize the need for workplace learning. Business and Marketing educators must be provided with opportunities to be exposed to work environments in which students will enter and function. Many work-based staff development strategies may be: (1) university independent studies to encourage self study of business/industry environments, (2) internships in industry, (3) business/industry work experiences on rotational basis or in the summer and off time, (4) business/academic educator integrated curriculum projects, (5) business/industry mentors for classroom teachers, and (6) business/industry field trips.

Conclusion

The move to work-based learning will require extensive and revolutionary staff development. Business and Marketing educators must re-examine the role education plays in society. First, Business and Marketing educators must become familiar and internalize the concepts presented in such documents as **SCANS**, **America's Choice**, **Work-place Basics**, and others to become active participants in discussions and realize implications of such research. Unfortunately, the majority of Business and Marketing educators have spent little time in a work environment outside of education. Yet, educators are charged with preparing students for such environments. This is likely the biggest problem with today's educational system, but Business and Marketing educators can lead the initiative to prepare students for the future.

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How Do We Keep Counselors Informed About Marketing Education?

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Counselors must be informed about what is happening in Marketing Education. Are program enrollments increasing or decreasing? Are school counselors aware of and knowledgeable about the content of your Marketing Education program? All of these questions must be answered before a Marketing Education Coordinator can begin to develop and implement an informational plan for school counselors. Real recruitment efforts begin through school counselors, who have direct contact with students and who are highly influential in directing students toward Marketing Education (McLelland, 1990).

Assuming the questions mentioned above should be answered, how can counselors be kept current with what is happening in Marketing Education? There are three steps that should be done before an informational plan is created. Step One is to list all the activities and developments that have taken place or will take place within the coming year that will affect the Marketing Education program. Step Two is to list all of the instances in which contact can be made with school counselors. Step Three is to evaluate the two previously developed lists and to ascertain where the counselors can be more involved.

Ways to Inform Counselors

Do not be afraid to use marketing promotional skills to involve counselors in Marketing Education programs. A variety of things can be done to inform counselors about Marketing Education. Some are:

- Invite counselors to breakfast or lunch. Have a packet of information available that explains courses, DECA activities and objectives, requirements for student enrollment, potential college degrees needed to pursue a career in a particular area, and a list of colleges offering degrees in Marketing Education. During the meal or afterwards, direct students to present a program reviewing the program's effectiveness, past history, and accomplishments. Include past activities, local, state, and national participation in DECA competitive events, and any
- success stories from past graduates. Also provide statistics describing the number of students who are employed in marketing related positions.
- Create an informational brochure for counselors to use in advising students. This brochure could include: courses and course sequences, typical daily student schedules, entrance requirements, DECA deadlines, and cooperative education opportunities.
- Create another brochure for counselors to distribute to students. In this brochure, include pictures from DECA activities, course descriptions and sequences, possible benefits of enrolling in Marketing Education, and the Marketing Education Coordinator's name, address, and office phone number.
- Invite counselors to the Marketing Education classroom during special events. Let the counselors see, first hand, what occurs in a Marketing Education classroom.
- Solicit counselors to serve as judges for local, district and state DECA competitive events. Counselors will see Marketing Education students demonstrating competence as a result being a Marketing Education student.
- Direct students in an advanced Marketing Education class to prepare a Marketing Education video for use as a recruitment tool. Invite school counselors for a premier showing of the tape and ask the counselors to evaluate the tape's effectiveness in promoting Marketing Education.
- Sponsor a *Counselors' Appreciation Day*. Invite the counselors to your classroom for refreshments and distribute gifts for each counselor that are donated by local businesses. Throughout the community, honor counselors' importance and performance by posting counselors' pictures in selected businesses.

- Ask counselors to serve as advisors and editors on various DECA written-events projects. Not only will this inform counselors of the in-depth research required to complete the projects, but counselors will see first hand the academic vigor of the Marketing Education program.
- Photocopy various articles from current marketing periodicals to inform counselors about changes in the Marketing Education program.
- Build relationships. As a Marketing Education Coordinator, get to know each of the counselors. Make a point to say *hello* when you pass their offices. Meet at least twice a year to learn counselors' perceptions of the Marketing Education program.
- Help school counselors during crunch periods and special activities. Participate in career days or college senior days. Be a resource for the counselors just as counselors are a resource for Marketing Education.
- Work as a team in getting involved in TECH PREP. Work together to create an effective agreement that will enable Marketing Education students to be articulated upon enrollment at a postsecondary institution.

All of these techniques are only suggestions. However, the main objective is to develop and implement a plan that informs counselors about Marketing Education. Poets in the past have told us that beauty is in the eyes of the beholder. Marketing Education Coordinators are the key to conveying the strength and success of Marketing Education. Unfortunately, many misconceptions about Marketing Education are not consistent with reality; these perceived misconceptions hide the beauty or strengths of Marketing Education (Stone, 1992). If counselors' opinions toward Marketing Education are to change, counselors must be informed about Marketing Education. Thus, Marketing Education Coordinators must spread the word and tell counselors about Marketing Education.

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Communicating with More Than Words

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I know you believe that you understand what you think I said, but I am not sure that you realize that what you heard is not what I meant.

The secret of being heard--how to really talk to another person--is for the most part simply to listen!

1. Understand nonverbal communications.
2. Listening skills.
   A. Listen to the sounds of the voices as much as the words.
   B. Look at how people talk both with their faces and bodies.
   C. Sometimes we hear more with our eyes than with our ears and hear more from tones than from words..
3. Nonverbal communications come in many fashions.
   A. Self-image conveys much with non-verbal communications.
   B. Enthusiasm/pride in work.
   C. Grooming and appropriate dress.

To become a better listener, the skill of listening requires the following nonverbal skills:

1. Listen with an *inner ear*--to hear what actually is meant, rather than what is said with words. Only by listening carefully and deeply to others and observing their actions as well as their words can we truly communicate.
2. Listen to the concerns of others--if others believe you are taking them seriously, they will take you seriously in return.
3. Know when JUST to listen. Sometimes words feel--coldness replaces warmth, silences seem threatening. If there is ever a time to listen, this is it. Sometimes by simply listening you say more about how you feel than any words can say. Try always to listen with a clear head and an open mind.
4. Assume nothing--appearances are deceptive. Misleading signs of human behavior can have serious consequences.
5. Say what you mean.
6. Understand what must be communicated. Before speaking, always ask yourself, *What is the message that is needed*?
7. Communication is in the present. *I should have*- -will not suffice.

Major nonverbal messages are conveyed by:

1. Body movement, facial expressions, posture, and gestures
2. Eye movement--type, amount, and blinking
3. Vocal factors such as variety, clarity, tone, nonverbal utterances, and silence
4. Touch--handshakes, hugs, and back patting
5. Objects--dress, decor, address, and status symbols.
6. Space and distance--how persons react when others enter *their personal space*.

To learn to *read* the nonverbal portion of communication is to better understand our students, our peers, and our organizations. If educators better understand themselves; then their verbal and nonverbal communication skills will improve.

Is Business and Marketing Education's Curriculum Ready for Life-Coping Skills?

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In the past five years, Business and Marketing teachers have put a great deal of emphasis on assisting students develop the ability to make decisions and relate to others. One related topic that is considered important by employers but has not received much classroom attention is the development of life-coping skills related to transitions which require change, according to a survey of Illinois trainers and secondary Business Education teachers.

Life-coping skills include job related activities such as job loss or change and personal activities such as divorce or family/friend death. Trainers consider each of the following change transition skills important for employees to possess; however, secondary Business Education teachers do not include them as classroom objectives.

- Identify changes that have taken place.
- Assess the amount of stress which the change is going to cause in his/her life.
- Identify changes in assumptions about self as a result of the transition.
- Identify changes in assumptions about others as a result of the transition.
- Identify a variety of **support systems**--individuals, groups, institutions, and agencies which will be helpful in coping with a transition.
- Identify **coping responses** which will be helpful in managing transition.
- Identify support alternatives for coping with transitions such as exercise, meditation, and biofeedback.
- Utilize a problem solving model to increase awareness of **options** for managing transitions.
- Identify possible outcomes of a transition and assess the payoff of outcomes.
- Take action on decisions made about how to cope with a transition.
- Identify learnings about self from the transition.
- dentify learnings about others from the transition.
- Evaluate the appropriateness of a chosen plan of action.
- Transfer awareness to future transactions. i.e., utilize the understanding of the transition process to better manage future transitions.

Teachers should remember that change and change transitions can be caused by some actions that can be controlled by the student/employee; other actions cannot be controlled. Students need to take inventory of themselves as they relate to several topics. These topics include:

- Maintaining a professional attitude.

  Use a sense of humor in a positive way, frequently avoiding conflicts.

  Take the initiative to develop the skills required to handle a situation.

  Dress to fit the job.
- Understanding human relations.

  Understand the role of office/company politics.

  Recognize the need others have for being praised and recognized.

  Communicate in an effective manner.

  Develop the ability to work with difficult people.

  Work as a team member with people of diverse backgrounds.
- Balancing the job and personal life.

  Assume the responsibilities required of the job and going beyond the minimum.

  Recognize that lifelong learning is a part of today's worklife.

  Experience satisfaction in performing a job well.

  Recognize the physical and emotional effects undue stress plays upon one's health.

  Recognize the effects of job burnout and the resulting loss of job satisfaction.

Develop time management skills in order to balance multiple roles, such as spouse, parent, student, and worker.

- Recognizing trends that affect one's work:

  Be able to change procedures in performing work.

  Recognize that time schedules can be used to one's advantage.

  Recognize that more work is being completed in locations other than the office.

  Understand significance of work laws, such as sexual harassment and smoking.

There are techniques Business and Marketing teachers can use to assist students in recognizing situations in which they will have to use coping skills. A review of the techniques will indicate to the reader that special topics do not have to be planned for the classroom to accomplish this objective. Many techniques can be used in the day-to-day classroom setting. Some techniques teachers can use include:

- Helping students understand the importance of lifelong learning—especially technology training. Workers must take responsibility for their own learning.
- Assisting the student in the development of daily communication skills so the student can be assertive yet resolve conflict.
- Brainstorming a list of support systems available for a variety of changes that could occur in a person's work and personal life.
- Placing students in positions where they have to set goals and develop procedures that will help them meet the goals. Group settings are important, and all students need to be aware of who is responsible for each goal and procedure specified.
- Helping students extrapolate information needed when they are in *information overload*.
- Incorporating participative management techniques in the classroom whenever possible.
- Exhibiting a sense of humor and helping students understand its importance in everyday life. Help them understand that offensive jokes, especially racial and sexist jokes, are inappropriate. Post cartoons on bulletin boards or on E-mail periodically.
- Using cases showing how people have coped with stress resulting from a variety of life situations.

Teachers must recognize that students can only be made aware of possible life situations and methods of coping with them; they cannot assure students that an easy transition will be made when faced with change and the resulting transition.

Back to the Future in Workforce Education

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&

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Not since the Great Depression has America stood on the brink of such dramatic economic and social changes. History may view the 1990s as a distortion of time where the future was the present. Technical innovation is rapidly occurring; old political orders are now upside down (nationally and internationally); global competition is a high priority; vast demographic changes are occurring; and educational reform is now into its second decade. This paper will compare and contrast what was, what is, and what will be in socio-economic spheres that affect workforce education.

Education

The country or countries that make the necessary changes in business and economic strategy will lead the world in economic power and set the pace for the next century. Those changes will have a great impact on education, employment and economic stability for the United States. Without including the concepts of a global economy, European Common Market and the effects of GATT (General Agreement on Tariffs and Trade), any discussion of the employment outlook for the future and the role of vocational education would be incomplete.

It is widely believed that the dual labor market in the United States is becoming more and more prevalent and will continue to divide the skilled higher paying jobs from the *secondary market jobs* of the unskilled. Secretary of Labor Robert Reich outlined his analysis of how job skills are affecting the social structure of the United States. (Hudelson, 1994). Reich believes the old middle class that has dominated the economic scene in America since World War II has splintered into an underclass, an overclass and an *anxious class*. Reich further theorizes that the underclass is increasingly isolated from the core economy; the overclass is well-positioned to move forward, capitalizing on marketplace changes.

What Was?

In comparing the past with the present, in 1950, 60% of the labor force's jobs were unskilled, 20% were skilled; and 20% were professional. By 1991, the professional category remained at 20%, but unskilled had decreased to 35%, and skilled had increased to 45%. By 2000, the professional will still be 20%; unskilled will be 15%; and skilled will be 65% (Bureau of Labor Statistics).

What Will Be?

Leftwich (1994) indicates that by the year 2005 there will be 12% growth in employment in the U.S. An additional 26.4 million more jobs will be added to the economy by then. By that time service workers and administrative support workers will comprise more than a third of the workforce.

What are the effects of these changing trends in education? Entry of the baby boomlet generations into school will increase the need for preschool, elementary and secondary teachers. During the next decade, the teen population will grow at twice the rate of the overall population. By the time this bulge peaks in 2010, it will top the Baby Boom of the 60s and 70s.

Sociological

What will be the sociological difference from the past generation of Baby Boom and Baby Bust? (1) Change in the number of two-income households from half of all families to about three-fourths, (2) PC's, CD players, portable phones, video games and microwave ovens have become standard operating equipment of the middle class, (3) Multiculturalism is an established part of teens' environment.

Negative factors include (1) Being exposed to adult problems such as Aids, homelessness, and poverty, (2) Being raised by a single parent (which necessitates teenagers being asked to take on more adult tasks such as shopping for themselves, doing laundry and cooking for themselves and others in the family) (Business Week, 1994, p. 66-77). By the year 2010, there will be 30.81 million teenagers. Those students will become the highly educated

work force needed in the technology-based global marketplace of the future.

Approximately 90% of the current workforce will still be on the job in the year 2000. About one-third of the labor force, approximately 37 million adults, receive some type of formal training in business and industry each year. Approximately, 1.3 billion hours are spent annually in corporate classrooms (Leach, 1993). This bodes well for qualified training and development personnel and presents an opportunity for educators.

Legislation

Looking at vocational education from a historical perspective, federal legislation came about as part of the overall defense strategy during World War II. The Smith-Hughes Act had several elements that contributed to isolation of vocational education from the academics. Later, educational reform argued for the establishment of comprehensive high schools in which students would learn both theory and practice. However, comprehensive high schools became comprehensive in name only. The dual system evolved—one preparing students for postsecondary education and the other preparing students for work (Hayward & Benson, 1993).

More recently, the Carl D. Perkins Act (Perkins II) of 1990 represented the most significant policy shift in the history of federal funding for vocational education. For the first time, emphasis was placed on academics as well as occupational skills. The Act was directed toward all segments of the population. It was a three-pronged approach to preparing a skilled and educated work force. Perkins II emphasizes:

- Integration of academic and vocational education
- Articulation between segments of education engaged in workforce education as evidenced by TECH PREP
- Closer linkages between school and work

Both the Smith-Hughes Act and the Perkins II were enacted because of national interests (national defense interests for Smith-Hughes Act and global competition for Perkins II); the first separated academic and vocational education, while the second brought the two together again. Americans are now almost *back to the future* in bringing academics and vocational education together again. One difference is the programs are now being integrated—not just the physical facilities. However, in attempting to integrate vocational and academic instruction, the mind-set of vocational teachers is a concern. Forty-two percent of all vocational teachers rated *coordinating vocational and academic instruction* as a serious problem (Data, 1995).

Conclusion

Educated workers who are thinkers, problem-solvers, communicators, and decision makers will be in demand. Employees who know how to apply their vocational skills and knowledge in unpredictable circumstances will fare better. The trends in employment which are subsequent to the economic changes are an open door of opportunity if educational institutions and private businesses, who need highly skilled productive workers, seek to cooperate and integrate classroom learning with job training to create a workforce capable of meeting the new demands of the twenty-first century.

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Ice Breakers for Your Interactive Business Classes

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Introduction

To assist teachers in their teaching, essential traits of communicating such as first impressions, likes and dislikes, trust, and synergism should be incorporated into the Business Education classroom by encouraging new students to interact. This will show how communication can and will flow easier among students who get to know each other better. Interactive exercises are described as examples of interactive ice breakers.

Importance of Communication and Being a Team Member

As a Business Educator, one knows that in the world of business; communication skills are essential and that being a *team player* is a must. In Kentucky, teachers are working to implement the mandated Kentucky Education Reform Act (KERA). One of KERA's new teacher-standards states: *The teacher introduces/implements/man-ages instruction that develops student abilities to use communication skills, apply core concepts, become self-sufficient individuals, become respon-sible team members, think and solve problems, and integrate knowledge.* One of KERA's goals is to overcome the difficulties that young students have--their fear of *being wrong* in their thinking or perceptions of issues or people. Students do not trust their own judgment and may not trust the judgment of people they do not know well. To address the issues of improving communications skill and becoming responsible team members, Business Educators can incorporate interactive exercises as a part of their instruction strategy.

Perception Exercise

The first *ice breaker* is designed to show participants that everyone has first impressions, has perceptions, and has biases. The first ice breaker deals with these perceptions by requiring that students form small groups with individuals they do not currently know. Students will then complete the following:

- Record their own perception of themselves
- Record their perception of each group member
- Share these perceptions
- Reconcile the differences in perception
- Take a self-assessment evaluation
- Complete an intuition form on a partner they do not know
- Share their responses with each other
- Answer a list of personal body biases
- Share openly their biases
- Discuss questions for thought as to how this affects their communication

The concept that people will open lines of communication and develop trust with people they know is the objective of this activity (The Johari Window Concept).

Synergism

An introduction to **synergism** will be discussed on how interactive groups are usually able to accomplish more than individuals. The objective of this activity is to provide an opportunity to experience synergy.

***Fun* Test**

Demonstrating the effectiveness of group participation versus individual participation allows participants to either participate as an individual or as a group member. A short *fun* test that involves recall and imagination accomplishes this objective. The test is very limited on time and the conclusion or end result is usually quite clear.

Conclusion

Today's business environment mandates effective communication skills. To foster the development of these skills, Business Educators can no longer depend solely upon the traditional teaching methods to provide these skills. Business Educators must adapt their teaching strategies to include the development of interactive skills. The time is now for interactive learning strategies.

Back to the One-Room School: Teaching Special Populations in Regular Classrooms

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Introduction

In recent years, educators have seen a wide range of innovative efforts in education emerge--efforts designed to improve the quality of schooling for *all* young people. Vocational education teachers and others are being pressured to improve existing programs and develop new programs that will enable special needs students to profit from vocational education. The goal of new and improved vocational programs is to increase enrollment in and completion of vocational programs by special needs students. Legislation such as Individual's with Disabilities Education Act and Carl Perkins have much to say about programming for students with disabilities. The implication of these laws is that students with disabilities are to be educated with students who are not disabled.

Educating special needs students by mainstreaming them into the regular classroom is not a new idea. Remember the one-room schools of the past: where teachers taught multi-aged and ability children in the same classes; where teachers were required to function not only as teacher, but as psychologist, counselor, and substitute parent; and where each child was allowed to develop to the maximum extent appropriate to the needs of that individual? The call to the future demands that educators revisit these schools of the past. There, educators might find insight into providing education to the diverse population of students that exists in vocational classrooms today.

The Demise of Homogeneous Grouping

Educators have had the era of so-called *homogeneous grouping* in which children were divided into several groups for instruction. The groups were given such fanciful names as *redbirds, bluebird and wrens*, or more recently, *astronauts, pilots, and scientists*; however, the children were not fooled. Students had their ownblunt names for *the bright kids, average kids, and dumbbells*. All children with learning problems were placed into a slow class--regardless of whether the problem was visual impairment, aptitude, nutrition, or simply low esteem. These often became *the dropout classes* and gradually dwindled to nothing shortly before or after thestudents reached the age of sixteen. Because students with discipline problems were placed into the same groups, these classes often became a breeding ground for behavior problems. Good teachers dodged these classes with a passion; and membership in such classes carried a stigma for the children as well as their parents. Even with its idealistic and altruistic motives, the practice of homogeneous grouping, soon became a devilish system in which the top group flourished and the bottom group became the *outcasts*. The common sense of good teachers caused them to see the hopelessness of this practice and encouraged them to start looking for ways to change it. Thus, the one-room school reeneters as the inclusive classroom approach (Gaddis, 1971).

Many classroom teachers become irate when they hear talk of diverse classes, heterogeneous grouping, mainstreaming, or inclusion. No wonder! Teaching mixed classes is difficult! Almost any teacher can do a great job when given small classes of above average students. The problem comes when teachers are asked to teach special needs students in regular classrooms. Consider the mix often found in *regular* classrooms--high achievers and *lower* achievers, poor and affluent, parenting and nonparenting, English speaking and non-English speaking, male and female, emotionally disturbed, hearing or speech impaired, and orthopedically limited.

In any discussion of teaching special needs students in regular classrooms, vocational educators tend to bemoan our mutual plight of *being stuck with a disproportionate number* of those children in our classes. However, two legitimate concerns commonly expressed by vocational instructors when faced with teaching special needs students are: (1) The feeling that the teachers do not have adequate background for working with these students, and (2) The worry that the

teachers cannot devote enough time to the special needs student without neglecting the rest of their class.

The Inclusive Classroom

All children can learn and should be included in our regular vocational classes. Even those children that have been categorized as slow learners, disabled, and EMH should be included in vocational education courses. Most students can be taught reading, communication, mathematics, social responsibility, and work skills as well as higher-level thinking skills at some level (Bottoms, 1993). You see, I believe, in the uniqueness and worth of the individual. This is not merely a philosophical concept I choose to believe; it is something that my experience forces me to believe.

In the schools, educators affirm that each child is different. Yet, on the basis of our record, it would seem that educators do not always reflect this belief in our actions. If educators really did believe it, educators would long ago have broken the rigidity in many educational programs. If the whole teaching profession would discard the idea that all learners will come through the educative process learning the same things in the same ways, what a blessing it would be to our society. Not only would special populations benefit, but so would every student in our classes.

Curricular efforts that are responsive to the needs of students being taught in diverse classrooms reflect the reality that these learners all have special needs, aptitudes, and interests Rather than expecting all learners to fit uniformly into a given curricular mold, educators should provide responsive curricular experiences that recognize strengths and weaknesses, provide meaningful curricular experiences, and prepare students for the challenges of living successfully (Manning, 1995)

The past and the future call for inclusive schooling, where all students learn together in integrated regular classrooms. In order for vocational educators to be able to meet their future, they will need support in

- Identifying the *true special needs student*--the most obvious first step in diagnosis and remediation.
- Determining effective teaching and organizational practices that have been and are being used in schools in an effort to accommodate special needs students in the classroom.
- Developing a climate in the classroom and a working relationship between the teacher and the special needs students that will result in greater progress.
- Justifying in their own minds the necessity for the extra effort and time needed to help the special needs students, and in giving teachers more confidence in their ability to make a real contribution to the child's education.
- Identifying materials that have proved to be of value when used in the classroom with special needs students (Gaddis, 1971).

Conclusion

If vocational and technical educators are still asking, *Why should all children learn together in regular education classrooms?*, then vocational educators are asking the *wrong* question. It is a question that forces us only to look back to the past. The *only* question that vocational educators should be asking now and in the future is: *What will it take to have this child be successful in a regular classroom?* This question allows us to focus our attention and efforts on what is most important--how to support *all* students in a fully inclusive classroom. It is hoped and desired that as educators approach the year 2000, all classrooms will have an array of diverse students, and all teachers will be prepared to teach them!

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Teaching Beyond the Software

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In 1959, **THE AMERICAN BUSINESS EDUCATION YEARBOOK** began with this passage: "Business Educators have long recognized that there are two basic kinds of secondary school education for office employment—clerical and stenographic." A quick review of the table of contents reveals numerous references to clerical programs, stenographic skills, and employment opportunities in office work. Chapter 8 refers to UNIVAC and in predicting the school's role in providing training for the electronic office, the following statement appears:

> It is doubtful whether the schools will be able to provide the technical training necessary to prepare students to operate automated office equipment. Many teachers see the need to train students on the keypunch, but there are few instances where the schools have been able to afford them. The cost is prohibitive but the following changes are anticipated: More electric typewriters, more machine transcription training, less emphasis on shorthand as a vocational skill and more use as a personal-use skill. The teaching of integrated data processing machines in retailing will increase.

Thirty-five years have passed since these predictions were made. The typewriter is fast becoming a relic, their predictions for shorthand were on target, and the keypunch machine has been resigned to the musty bookshelves of memory. Today, these editors would be amazed at what Business and Marketing educators teach in the classroom, the amazing array of software and hardware that Business and Marketing ducators use in teaching, and the changing roles of those who leave our programs for the world of work. Throughout this 1959 book, Business and Marketing educators are cautioned to instill in students certain basic personal traits and abilities and not to ignore the fundamental skills essential for work in the office.

Software packages today provide functions for about every skill taught when this book was written—spell checkers check our spelling with approximately 85% accuracy, spreadsheets can figure discounts, payrolls, and extensions in an instant, charts and tables can be produced beautifully on a graphics package, and desktop publishing software permits the classroom to compete effectively with commercial printers. Thus, Business and Marketing educators have become dependent upon automated equipment to substitute for the basic knowledge that once was taught in shorthand transcription, basic business math, business English, and typewriting. There are also packages available that will check writing for errors such as too much passive voice—but most of them fall short of showing the operator what to do about it. Business and Marketing educators *MUST TEACH BEYOND THE SOFTWARE* by recognizing that there are four major steps in the learning process for students who would master the computer and enter the office as successful employees. These stages are shown in the following model.

Supervision and Management

- Principles of supervision
- Planning
- Organizing
- Controlling

Specialize Knowledge and Skills

- Spreadsheet software
- Desktop Publishing
- Database
- Graphics
- Fax
- E-mail
- Voice Mail

Systems Procedures and Methods

- Records systems
- Workplace Organization
- Time Management
- Networking
- Telecommunications

Fundamental Skills

- Keyboarding

Word Processing to include

- grammar
- spelling
- punctuation
- vocabulary
- handling numbers
- capitalization
- abbreviations and acronyms
- document formatting

Communication skills

- Oral
- Written
- Group work

It is important to focus on the fundamental skills area of this model necessary to prepare students for the world of work and to help them to use their software packages efficiently and effectively by recognizing the limitations of these packages and knowing the basic rules of language. Teaching beyond the software will lead Business and Marketing Education *Back to the Future*

"Toto, I Don't Think We're in Kansas Anymore"

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In the wonderful story **THE WIZARD OF OZ**, Dorothy is swept suddenly into the mystical land of Oz. As she views the Emerald Palace in the mist and starts up the yellow brick road, she picks up her little dog, Toto, and she says, "Toto, I don't think we are in Kansas anymore."

As I look at our profession as educators, I sometimes feel like Dorothy—I am confused by a sense of adventure that says the future holds untold miracles brought on by the changes in office technology and the sense of homesickness for the days back in Kansas when the transcription teacher taught students proper grammar, when shorthand was a marketable skill, and when we could pick up the telephone and talk to a person instead of a machine.

The computer has changed every facet of our lives. It has also changed what we teach, how we teach, and who we teach. Some of us are still back in Kansas, and we are saying—*no need for me to learn this stuff. I will soon retire.* Yet computer literacy is a must in the workplace. It has professionalized the clerical force, and clericalized the professional force. The role of those who are educated in office technology has broadened. Change is the name of the game.

Just as we consider Dorothy's trip up the yellow brick road, we must consider our trip up the information highway. As you make your journey up the information highway, here are the questions you should ask of the Wizard when you get to the Emerald Palace.

- Ask the Wizard for a magic potion that will make every teacher across the curriculum realize that he or she is first of all a vocational teacher. All of us should be working to give students a marketable skill no matter what we teach.
- Ask the Wizard to cast a spell on guidance counselors at all levels that will make them see that what we do is important. A spell that will make them see that of the 4 million students who should have graduated from high school this year, 1 million dropped out before graduation and that we in Business and Marketing Education have what they need to find gainful employment beyond McDonald's and the other fast food establishments. Help them also to see that of the 1.5 million who start a community college or university education, only half of that number will complete it.
- Ask the Wizard to wave his magic wand and obliterate much of the red tape and paperwork that take time away from your instruction.
- Ask the Wizard for a school administrator who will back you in a crisis, who trusts your judgment, who is interested in your program, and who respects what you do. Ask the Wizard for a magic formula that will preserve your programs instead of so many projects and educational gimmicks, GRANT US SOME FOCUS.
- Ask the Wizard to cast a spell on parents, clergy, and businessmen that will enable you to enlist their support in keeping students in school—absenteeism is an enormous burden on the teacher and an enormous loss to the student. As a teacher, it is discouraging when you have labored to bring something interesting and productive to the class and only half show.
- Ask the Wizard for a formula that will enable you to get students to transfer what they learn in your class to other classes.
- Ask the Wizard for advice on how to deal with diverse classroom population that represents our global community.
- Ask the Wizard to bestow on every teacher the patience and the skills to remediate in those areas where students are weak. We need to take students from where they are and prepare a finished product that can compete in a global market environment.
- Ask the Wizard for more planning time so that you can have a life outside the school.
- Ask the Wizard for fewer educational gimmicks—as teachers who left Kansas in the 70s for the land of competency-based

education, who have ventured along the yellow brick road through COE, VOT, block programs, programmed learning, TECH PREP, and outcomes-based education. The buzz words now in education are Total Quality Management in the classroom. Who knows what is next? Ask the Wizard to help you to cope with these demands while trying to give students what they need in the way of workplace basics. Ask for the courage to teach such basic things as vocabulary—it is the basis of literacy and closely associated with IQ, yet, is considered Mickey Mouse by many of your colleagues.

Total Quality Management in the classroom is not a bad concept to follow. Total Quality Management exists in the classroom when:

- Students attend class regularly and on time because they feel that the course is important to their future success, and they cannot afford to miss.
- Teachers are competent and well prepared, and every student leaves a class knowing more than they knew when they entered.
- Students feel that the teacher is there to help them succeed.
- There is mutual respect between student and teacher.
- Instruction is balanced between the theoretical that challenges the student to think and the practical that enables the student to apply the discipline.
- Every student uses correct oral and written language.
- Up-to-date materials and a variety of methods are used to deliver the instruction. Use technology where it helps assault the students' senses and retain what has been taught in order that it is not dependent upon technology to the point where they cannot write, read, understand, think, apply, and perform basic computation.
- A fair grading system that requires good work and is not inflated with charitable or unmeasurable factors.
- Some evidence of enduring learning that encourages high self-esteem, knowledge, and interaction among the multicultured population that comprise our student body.

While technology is here to stay, it is not the only thing that has changed the way we work. Morality, family values, our classroom population, legislation, language, dress codes, curricula, learning environment, and the job market to name a few. Downsizing or rightsizing has poured more work on the support staff but the salary has not kept pace. When students select a business curriculum, they are choosing a course of learning that should lead not only to a job but to a satisfying career and a happy life.

Incorporating Cooperative Learning into Word/Information Processing Classes

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Introduction

Team work...Two heads are better than one... United we stand, divided we fall... Birds of a feather flock together... We are strength in numbers... A chain is only as strong as its weakest link... No man is an island. **Team Work In Word Information Classes**—How can it be taught effectively?

One way to effectively teach team work in word/information processing classes is to integrate cooperative learning strategies. Cooperative learning, the instructional use of small groups working together to maximize their own and each other's learning, is an excellent tool for developing intergroup understanding and harmony, education equity, and relationships among students (Johnson, Johnson, and Smith, 1991). Above all, cooperative learning strategies give students empowerment by encouraging them to actively probe for knowledge. As a result, students become less bored, more engaged, and more eager to learn. As their level of involvement in learning ameliorates, they think better—and remember more.

Techniques Utilized

Three techniques for incorporating cooperative learning into word/information processing classes follow.

Role Identification.

In an effort to provide students enrolled in an introductory word/information class with empowerment, four cooperative learning units were integrated. The class was divided into groups of four, allowing each member of each group to rotate through each of the following roles.

- Advocate—to make sure that each member actively participates in all discussions.
- Chronologist—to record all activities of each work session, edit the final report before submission, and submit a keyboarded summary with each activity.
- Chief Executive Officer (CEO)—to ensure the success of the group by keeping track of how well each member cooperates and checking to make sure that each member understands the assignment.
- Compiler—to ensure that all papers are compiled in the appropriate manner and submitted in a timely manner.

Performance Appraisals.

Since many of the students had worked in groups before and had misconceived ideas about team work, performance appraisals were done at the end of each activity. Efforts were made to address the following concerns:

- Will the students interact with each other?
- Will each student in each group consistently play special roles?
- Will each student work to hear each other's opinion?
- Will each student work to achieve consensus in a decision?
- Will there be a significant difference between the cooperative learning environment and the traditional environment that had been employed?
- Will the teacher's role be different?
- Will there be a difference in student's behavior?
- Will the students have more of an opportunity to engage in higher-level tasks —analyzing, interpreting, evaluating, creating, problem creating, problem solving?
- Will student achievement improve?
- Will the high achievers dominate their groups?

Planning.

The effective use of cooperative learning depends upon the ability of the instructor to plan and to make sure that all participants were actively involved. As was learned when the project was first implemented, it was imperative to follow Johnson and Johnson's (1987) guidelines before implementing any phase of any cooperative learning activity.

- Structure and Organization. The learning assignments must be structured with clear instructions and specific requirements that will emphasize the learning of material, not the mere completion of tasks.
- Group Size. The group size should not exceed six.
- Time Frame. The time frame for each activity must be determined and put in writing when assignment is first given. Provide dates for progress reports.
- Selection Process. Diversity is the key.

Conclusion

Students who participated in this project identified the cooperative learning activities as those activities that they enjoyed the most, with one exception. After careful analysis of this one exception, it appeared that the end-of-the semester due date was the contributing factor to the reported dissatisfaction. Overall, most of these students agreed that the activities provided greater opportunities for exchange of ideas and conflict resolution, helped to increase their support system, and improved their intergroup relations and achievement.

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Faculty Attitudes Towards E-mail: Implication for Secondary Teachers

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A recent estimate by the Electronic Messaging Association, which represents 400 leading vendors of E-mail technology, says between 30 and 50 million people use E-mail with 16 million of those users in the North American business sector alone (Leslie, 1994). These millions of E-mail users are taking advantage of a wide variety of applications ranging from the informal social note sent to the office on the next floor to the journal article written collaboratively by scientists residing on different continents. Not only is the use of electronic networking growing exponentially in business and industry, but also school children are becoming frequent users of electronic communication. In just a few years, the number of K-12 students involved in networking has grown close to one million with a rate of increase of over 10% per year (Itzkan, 1992). According to Flatley (1992), it is becoming more important that today's business students learn the concepts and appropriate applications of E-mail technology than merely the keystrokes and procedures of E-mail software.

For those in the business of teaching communication skills, the implications of these numbers and the diversity of electronic communications are important. For, if different or additional communication skills are necessary for effective use of this technology, those functioning in electronic environments without appropriate training or lacing self-efficacy are working at a disadvantage. In addition to the traditional communication skills such as mastery of grammar, composition, and proofreading and editing skills, a person should be proficient in such areas as accessing databases during document preparation and synthesizing data and reports in an electronic media.

Purpose of Study

To observe E-mail use in a setting where the technology has been in place for some time and where the users are expert enough to provide a model for effective use would be especially beneficial for yielding implications for instruction. University faculty, who have used E-mail for as long as, and as productively as, any group would be a useful population to study. For prospective teachers, faculty who use E-mail productively would serve as a compelling model.

This study was designed to investigate and assess communication in an electronic environment within a specific professional work setting. First, the functional use of computer-mediated communication (E-mail) by university faculty was studied. What are the different patterns of E-mail use in a university setting and for what individual purposes are educators using E-mail? Second, the relationship of E-mail use with attitudes toward E-mail technology was examined. Respondents were asked to agree or disagree with 15 items concerning their attitudes of comfort with using E-mail as well as their attitudes toward E-mail's usefulness.

Methodology

A survey instrument which asked respondents to (1) indicate for what specific purposes they used E-mail, and (2) rate themselves on a number of positive and negative attitudes was used to collect data for this study. The survey was sent by campus mail to 500 faculty at Virginia Tech who were randomly selected from a total population of 1,400 faculty with published E-mail addresses. A total of 231 surveys were returned. Four weeks later, the survey was sent again to the 269 individuals who had not responded to the first mailing. A total of 70 surveys were returned by this group, for a total of 301 responses. Of the 301 responses, 262 were usable. Thus, usable responses were received from 52.4% of the sample group.

Factor analysis was performed on both the attitude items and the patterns of use items of the survey for two purposes: (1) to determine if the factors would load similarly to the factor loading on the instrument from which the scales were adapted, and (2) to identify a smaller number of factors to facilitate multiple regression procedures.

Findings

Attitude toward E-mail items clustered into two factors, *Usefulness* which encompassed nine of the attitude items, and *Comfort/Anxiety* which encompassed six of the attitude items. E-mail use items clustered into two factors, *Task Use* which

encompassed eight items, and *Social Use* which encompassed four items.

Using multiple regression, the relationships among attitudes, use, and demographics were established. Below is a summary of the variables with significant contributions in the various models.

Years E-mail Has Been Used

The regression analyses for both task use and social use of E-mail revealed that the number of years an individual has used E-mail contributed significantly to prediction of how often an individual uses the technology for both tasks. The number of years an individual has used E-mail did not, however, contribute significantly to information in the prediction of attitude toward E-mail technology.

Age

The regression analyses for social use of E-mail and for usefulness of E-mail revealed that age contributed significantly to information in the prediction of social use and a positive attitude of usefulness. Younger people use E-mail more than older people for social purposes and have more positive usefulness attitudes than do older people. Age was not a significant factor in the analyses for task use or attitude of comfort with E-mail technology.

Comfort with E-mail

The regression analyses for the usefulness of E-mail technology revealed that comfort contributed significant information in the prediction equation. Comfort with E-mail was not significant in any of the other regression models.

Usefulness of E-mail

All of the regression analyses for which E-mail usefulness was included as an independent variable revealed it contributed significant information for prediction.

Discussion

The many practical uses of E-mail range from speedy delivery of information to collaborative work sharing, which need to be emphasized to students in order to increase their motivation to work in an electronic environment. Since findings of the study suggest usefulness is the most significant of the attitude variables, teachers should consider giving assignments that rely on E-mail's practicality for successful completion.

If experience with E-mail is important then instruction should involve as much hands-on application as possible. Conceptually, E-mail is fairly rudimentary; the difficulties are presented by the unfamiliar communication conventions and the often less-than-friendly user interface. Successful experience is the best way to overcome these difficulties. Another recommendation in this area would be to have teachers provide an E-mail address to students and to encourage students to communicate with them over this medium.

In the present study, gender was not a significant factor as it was in many prior studies where females had higher levels of anxiety about computers. Two explanations are offered for this favorable result. First, in a university setting, one would not expect to find gender differences relating to work being done by faculty. Second, as computers have become more commonplace at work, women have begun to have as much experience with computer technology as men. For teachers, this encouraging finding should serve as a reminder against bias of any kind.

Recommendations for Further Research

To confirm the findings of this study, this research should be replicated in other similar settings where an E-mail system has been in place for many years and where faculty are fairly experienced users of E-mail. Longitudinal research that tracks the use of E-mail and the other variables over time is also recommended.

The study should also be duplicated using high school teachers or community college teachers as the sample frame. College faculty have easier access to internal and external networks, and the nature of their work, especially in a research intensive institution, would make their E-mail use more commonplace, and less typical of the teaching profession.

Conclusions

E-mail is rapidly becoming an important form of communication in today's technology-oriented society. Business and Marketing Educators constantly face the charge to keep aware of changing technology, and incorporating the changing technology into their curricula. The future is now for E-mail in Business and Marketing classrooms!

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Can Multimedia REALLY Enhance Instruction?

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Since 1987, a research team at the University of Nebraska-Lincoln has investigated the effective use of technologically-mediated instructional strategies (TMIS) within instructional settings. The purpose of the ongoing investigation is (1) to identify variables relevant to the systematic study of TMIS effectiveness; and (2) to provide instructional decision-makers with a framework to assist in prudent TMIS selection. The purpose of the current paper is to summarize findings synthesized from over 300 research studies on Multimedia effectiveness and to recommend strategies for effective Multimedia use.

Effectiveness Factors

To discern the effectiveness of a particular TMIS, the media are examined in relation to each of six relevant variables, holistically and individually. Each of the effectiveness factors are briefly described, followed by examples gleaned from research relevant to Multimedia.

Environment

Factors such as instructional setting, group dynamics, communication patterns, institutional goals and organizational climate can influence effective TMIS use. Multimedia has been found effective in urban and rural settings, in business, military and school settings, with students of diverse academic ability levels and age categories, and in small and large groups. The dominant factor in successful implementation of TMIS is top administrative support. The integration of various socialization and coaching interventions with Multimedia has striking positive results. Increased comfort levels are reported when Multimedia is introduced with a *buddy*, especially in isolated learning settings. A common finding was higher overall achievement, productivity, goal orientation, persistence and altruism for those working in teams. The use of human interactive *coaching* and discussion was found to enhance learning relevance, attitudes and long-term productivity.

Learner

This factor investigates how the learner's performance and/or achievement is affected by the TMIS. Related variables include cognitive style, attitude, personality profile, and various demographic variables. Studies have reported consistent success for Multimedia in diverse settings with disparate learner profiles. A variety of cognitive and personality styles have been studied, with successful results. No significant differences were reported among personality styles. The vast majority of studies have reported highly positive attitudes, heightened confidence levels, and accommodation of disparate learner needs. Learners report more time on task, heightened attention and interest levels and less fatigue. Taking breaks when learning with Multimedia is often reported as a nuisance and higher learning efficiency and performance was reported when learners controlled their break time. In general, Multimedia learners complete more work than with comparison learning methods, attend better and score higher in achievement.

Instructor

This effectiveness factor includes variables such as instructor attitude toward TMIS, cognitive and/or personality style and other demographic variables. The influence of the teacher has been identified as a significant factor in system success. In comparison with traditional instructional delivery, teachers have reported more effective and efficient instructional delivery with Multimedia. The media has been credited with equalizing instructional quality across distance, enabling more learner-teacher interaction and enhancing teacher enjoyment. Several studies reported student achievement gains greater in the hands of effective teachers.

Learning process

The learning process factor includes such variables as student performance, mastery level, accommodation of the various levels of Bloom's taxonomy, short and long-term retention rates, learner assessment, motivational factors, knowledge presentation, and learning activities.

Learning or study time reduction is a significant and prevalent benefit, with time reductions ranging from 25 to 40 percent. In some cases, the same students who reported reduced learning time also had increased confidence in their knowledge. A vast majority of the studies reported enhanced enjoyment and motivation with the use of Multimedia. Although enhanced instructional *effectiveness* was frequently mentioned, achievement was the least prevalent variable overall. Although many studies reported higher achievement with Multimedia, others found equal achievement. Higher achievement appears to be evident on content which required higher cognitive abilities such as problem solving and application. Significant improvement in retention was reported.

Content

This variable investigates the various content areas, i.e., math, science, technical skills, managerial content, problem solving and so forth. A review of the effectiveness studies conducted with Multimedia indicate that the media has proven effective in teaching across virtually all content areas. The media allows the presentation of provocative, realistic, high quality learning, with achievement scores heightened for application and at higher cognitive levels. Some evidence reports effectiveness with special needs students.

Cost/Benefit

Because implementation of TMIS often involves an initially expensive investment, cost/benefit assessments consider the benefits and drawbacks of TMIS within a particular context. Researchers often examine critical tasks involved in using the TMIS to develop criteria for judging the effectiveness of the TMIS within special environments. Benefits of Multimedia include enhanced quality and reduced travel and equipment costs. In considering the cost of Multimedia development, factors generally considered are content, time, location, convenience and safety. Multimedia is often designed for time-consuming investigations, to simulate real and hypothetical conditions, and to simulate potentially dangerous or expensive procedures.

What is it about Multimedia that Enhances Learning?

It is no secret to educators that the key to learning success stems from the effective use of sound psychological learning principles. Multimedia systems inherently tap into a number of these principles.

With Multimedia, the learner is ensured frequent and multisensory active participation in learning. For example, in *inquiry-oriented learning*, students use problem solving activities, engaging in academic discussion and collaborating with other learners to construct and represent their own meaning.

Multimedia is inherently designed to enable direct and frequent interaction with learners. A hybrid of engaging methods are available for the learner to dynamically test, revise and broaden thinking by interrelating relevant pieces of information. Though dynamic interaction, Multimedia enables the learner to create meaningful contexts, thus heightening retention. In group instruction, Multimedia can improve the level and sophistication of student-teacher interaction, thus enhancing learner comprehension and achievement.

Using rich multisensory imagery, Multimedia clarifies relevance, a learning component which increases the ability of the learner to move more readily into application or problem solving. In addition, the random capability of well-designed Multimedia courseware builds in frequent interactive feedback. This is an especially powerful learning dynamic, especially when compared to the average one minute per day interactive feedback received by most students in traditional classrooms. Furthermore, Multimedia allows the learner to practice repetitively until mastery is achieved, under the tutelage of an infinitely patient expert.

Multimedia uses multisensory learning, which appeals to diverse cognitive styles, augments interest and attention, and helps learners mentally execute complex learning. The visual imagery and rich concrete and abstract examples promote development of a relatively rich semantic network which can be more easily applied. In addition, Multimedia promotes equity in learning. It is genderless, equally effective for all ability levels, ages groups, and socioeconomic backgrounds. Time, distance, human expertise, and facility inequities are equalized. Finally, with Multimedia, responsibility for initiating learning can shift from the teacher to the learners, thus empowering learners beyond even the ideal tutor/tutee relationship.

How can Instructors Enhance the Effective Use of Multimedia?

The research provides evidence that well-designed Multimedia, used effectively by instructors in an appropriate environment, is a

powerful tool for strengthening learning. Recommendations for effective use follow.

- Attend to the social environment. For example, use facilitators, cooperative and peer learning, and coaching.
- Provide a *norm*. For example, allow learners to work in pairs.
- Minimize technical difficulties and provide technical support.
- Recognize the importance of curricula reform to successful use.
- Use structuring aids, such as cognitive maps.
- Provide learners with a choice in the use of various TMIS.
- Select input devices which allow teacher movement for large group instruction.
- Enhance user control, especially with adult learners.
- Orient facilitators and users.
- Evaluate Multimedia courseware for instructional design.
- Attend to ergonomic considerations.
- Recognize the importance of the instructor/facilitator.

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Active Learning Instructional Strategies for Business Courses

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Many students lack thinking behaviors required for bridging the gap between business classrooms and the business workplace. These thinking skills can be developed by using active learning instructional strategies. According to Charles Bonwell (1991), "active learning involves students in doing things and thinking about the things they are doing." This material offers active learning strategies to foster better listening, to enhance understanding of international concepts necessary for adapting to an interdependent world economy, and to develop cooperative learning techniques which increase student motivation and improve creative and critical thinking skills.

Improving Listening Skills

Researchers suggest that Americans listen at only 25 percent efficiency. Such poor listening habits are costly in business. Letters must be retyped; shipments, reshipped; appointments, rescheduled; directions, restated.

To provide a listening classroom environment, use these creative and critical thinking teaching strategies. Give directions only once, discuss good note-taking techniques so that students listen for meaning rather than only facts, and develop listening guidelines such as one person talks at a time.

To determine the level of listening, give students listening tests and inventories. Kurtz (1990) suggests asking students to analyze their recorded conversations, as well as asking others for critiques of their listening habits. Mausehund and Timm (1992) offer exercises to help students follow directions and retain instructions. To become both active and reflective listeners, have two students read a few pages of their text. While one partner orally summarizes from memory what was read, the other partner listens, corrects, clarifies, and elaborates on the material. After the oral summary, both students read the next few pages, repeating the procedure with partners changing roles. Listening for content can be accomplished by asking questions.

Participating in a Global Economy

One of the most significant changes of the US has been adapting to an interdependent world economy. Business teachers need to prepare students for participation in this global economy by helping them understand cultural differences including customs, values, politics, attitudes, social mores, and economics. Redmann and Davis (January, 1993) offer many strategies for teaching international concepts in business courses.

To develop international communication concepts, ask each student to interview an international person to find out positive and negative impression of the US, cultural differences encountered, and communication barriers experienced. Have students write letters for both national and international purposes. Using the *AT&T Toll-Free 800 Directory*, each student could telephone a company with *International* in its name and interview a person whose job includes contacts with others located outside the US. Some topics for discussion are number of countries with which the company does business, qualifications sought for international positions, and description of training provided for international work. Group project ideas on preparing for international travel could include developing an itinerary, consulting a travel agent for airline schedules and fares as well as hotel and car rental costs, contacting a bank to learn how to obtain foreign currency and preparing a currency conversion table, and determining need for vaccinations, inoculations, and visas.

To enhance appreciation of cultural differences, have students role play an international business meeting. Prepare written and oral reports on some of these topics: negotiation skills, status of women, bribes and gifts, organization of the school system, and work attitudes.

To help students develop an awareness of the internationalization of the market place, ask students to visit clothing, grocery, and appliance stores and make lists of originations of these items. To expand economic and geographic awareness, help students learn about foreign currencies by reading *The Dollar* section of *USA*

Today. For each of the 23 currencies, the rate per dollar is given for Monday, Friday, six months ago, and a year ago.

Using Cooperative Learning Strategies

Cooperative learning is an instructional strategy designed to help students work together in small, heterogeneous groups to share the responsibility for learning. Because the number one reason people are fired is due to the lack of interpersonal skills, this collaborative skill is needed in the workplace (Johnson & Johnson, 1990).

These tasks or projects may be appropriate for group work in business classes.

- Think-Write-Pair-Share. Pose a question to students such as, *What five questions would you want answered during a job interview?* Students think and then write their responses individually; then, in pairs, share and discuss their questions. Then ask students to share two agreed-upon questions with the rest of the class (Hamilton, 1990).
- Co-Op, Co-Op. A main topic of study is selected and then subdivided into mini-topics. For example, students interested in a similar career form small groups and do a job analysis on that career. Each student selects a mini-topic, researches it, writes a paper, and shares the information with the small group. Have students edit each other's work. After discussion, the information is compiled into a group presentation and shared with the entire class. Evaluation includes individual papers as well as the work of other students in the group (Kagan, 1989).

Selected active learning instructional strategies have been presented in three areas: improving listening skills, participating in a global economy, and using cooperative learning. Active learning strategies such as the above will enhance learning in the Business classroom--the future is now for active learning strategies in the Business Education classroom.

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The Future is Now Through Distance Learning

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&

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Introduction

Traditionally, Mississippi and its educational system have suffered the stigma of stereotypical perceptions generated by its history of poverty and the stark contrasts of its rural, agricultural-based economy in the Mississippi Delta and the more industry-based affluence of its northeastern and coastal urban areas. Additionally, Mississippi's educational system has been poorly ranked based on student outcomes of national standardized testing, and the state has one of the highest illiteracy rates in the country. Mississippi's educators have reviewed these perceptions and are determined to overcome them. They are not satisfied simply to play a game of *catch up*; rather, the state is working diligently to establish a technology base with which educational offerings can *plug into the future*.

Community colleges have traditionally lead the way nationally in serving students better through information technology. In Mississippi, however, no specific leader for this initiative can be identified. Rather, cooperation among various educational levels, governmental agencies, and private businesses and industries has made on-line educational opportunities a reality for Mississippi students. Mississippi's Department of Education and institutions of higher learning have assessed traditional educational offerings with a view toward improving existing programs and providing enhanced educational opportunities for all citizens. Programs are being designed to incorporate flexibility, innovation, and technology to reach not only on-campus students, but also individuals distant to the campus.

Detail discussions of some of Mississippi's on-going technological initiatives toward achieving this goal include: University of Mississippi's Project LEAP, Mississippi Center for Supercomputing Research (MCSR), Mississippi State University's Fibernet 2000, and Mississippi's Community College Network (CCN), as well as more specific information on the Distance Learning Initiative of Delta State University.

University of Mississippi's Project LEAP

The University of Mississippi has undertaken the nation's first one-way video, two-way audio, statewide 20-hour per week literacy program. The purpose of the program is to address illiteracy through computer-assisted learning and interactive satellite instruction for adult JOBS clients.

Mississippi Center for Supercomputing Research (MCSR)

MCSR, established in 1987 at the University of Mississippi, "provides high-performance computing support to the faculty, professional staff, and students of eight state-supported senior institutions of higher learning;. . . . offers to its users accounts on multiple computer platforms ranging from graphics workstations to Cray Research super-computer systems; uses on-line services; and makes available technical guides and newsletters, seminars, and personal consultation" (MCSR Services, 1994). Such services enhance distance learning programs.

Mississippi State University's Fibernet 2000

An unusual partnership of five major corporations and nine public organizations within the state created Fibernet 2000, a unique union of technology, telecommunications, the public sector, corporate America, and the resources and talents of master teachers. Fiber optics, microelectronics, and lasers provide the base of the technologies that allow students and teachers to share educational opportunities without regard for walls, distance, or time. Students from the Mississippi Delta, to the hills of Appalachia, and to the prairies of central Mississippi can now exchange classes, information, and instructors without leaving their classrooms (Brook, 1994).

Mississippi's Community College Network

On July 11, 1994, Mississippi's 15 community colleges were linked through an interactive com-

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munication network (Community colleges..., 1994). The purposes of Mississippi's Community College Network (CCN) are to train, educate, provide teleconference capability, and provide "leading-edge telecommunication services to the business and public sectors of the state. It will feature full-motion totally interactive, two-way audio and video communications, [and] each of the 15 community colleges will initially have one interactive classroom equipped with a minimum of three large television monitors and supporting technology" (Community colleges..., 1994). Through CCN, Mississippi's best teachers can deliver instruction at multiple locations; and Mississippi public schools and colleges can interact with educational institutions anywhere in the world (Smith in Community colleges..., 1994).

Distance Learning at Delta State University

Delta State University (DSU), located in Cleveland, Mississippi, serves as the educational and cultural center of the region. Cleveland is in the heart of the Mississippi Delta, a 20-county, northwestern region "rich in various ethnic and cultural groups. Between 10% and 15% of the students attend from other parts of the state, and slightly under 10% reside outside the state" (**DSU Handbook**, 1994). The University has enjoyed a consistent increase in student population. DSU is committed to providing high-quality, educational experiences for students and to enhancing those experiences where possible. To that end, DSU has undertaken an initiative to include distance learning as one mode of instructional delivery. This method of delivery will allow students in remote areas to avail themselves of the educational offerings available at the University with minimal on-campus involvement.

At DSU, implementation of distance learning has been based on two premises: need and impact on enrollment. Some DSU distance learning projects include:

Multimedia Distance Learning Users Group

This group was formed to keep faculty aware of current activities and trends in distance learning and Multimedia at DSU. This group will provide distance learning training for faculty and demonstration of distance learning applications using existing and new technologies to the University. The group's premiere activity was to witness a demonstration of a satellite-delivered pilot demonstration.

Telecourse (Film Studies)

A project was designed to use existing technology, a direct-marketing approach to generate student interest, and a subject area not previously offered to traditional DSU students. This course will reach a new group of people who do not normally use university services, and will provide a great opportunity to increase enrollment. The content consists of a pre-packaged course comprised of 13 one-hour episodes and a textbook. Mississippi Educational Television will air the programs as a service to DSU. Anyone in the state can take the course and receive credit for it from DSU. To enhance student success, optional on-campus reviews and viewing sessions of additional film selections will be provided.

Courses Via Live Television

In conjunction with a local Cleveland, Mississippi, television station (W8CQ), Dr. William Hayes will use DSU's television studio in the Media Services Center to teach a ten-week course in Student Success in College, which will take a holistic approach toward providing students with the knowledge, skills, and self-assurance to achieve academic success. The class sessions will be broadcast live with a phone patch to allow interaction between off-campus students and the professor. The in-studio audience will also consist of students. All students may purchase the workbook to complete, tear out, and mail in their assignments. DSU video production students will serve as the production crew for this course, providing them a very positive opportunity for applied learning experiences.

DSU Goes Online

DSU is scheduled to connect to Internet later this year. The State has provided money to install, in the DSU School of Nursing, a compressed video classroom consisting of two-way interactive technology similar to the community college network. DSU's School of Nursing will be able to contribute and receive information from the Medical Center. Additionally, Coahoma Community College may be a potential user of this classroom; and the University of Southern Mississippi will offer Library Science courses. This classroom will be up and running in Fall 1995.

Summary

The integration and interaction of these various initiatives and programs in Mississippi will move the educational environment forward for the betterment of all Mississippians. Having been at the bottom of many social and economic

indicators, Mississippi has set a course to advance the state and its citizens through educational enhancement. Mississippi has now recognized that the future is now through distance learning

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Incorporating Higher-Order Thinking Skills into the Business Classroom

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Tomorrow's workers must develop a greater level of higher-order thinking skills (Bailey, 1990). The U.S. Department of Labor (**What Work Requires of Schools: A SCANS Report for America 2000**) supports Bailey and recommends that workers possess higher-order thinking skills, including creative thinking, decision making, problem solving, seeing things in the mind's eye, knowing how to learn, and reasoning. Specifically, Bailey (1990) noted banking employees are no longer limited to gathering basic information and opening accounts. They must think and sell products to consumers.

Higher-order thinking skills can be taught in the business classroom. The infusion approach is recognized as the most popular method of teaching higher-order thinking skills (Lambrecht, 1992; Willis, 1992), which allows higher-order thinking skills to be taught within context of specific subject matter. Students are, therefore, able to concentrate on higher-order thinking skill development and not be confused by new material.

A real-life context specific situation or scenario that was obtained through an interview with a bank branch manager is relayed below (Magee, 1993). The manager described the following:

> An angry customer came in, and he was *real hot*. He was *hot* because he had been a customer of the bank for at least 10 or 12 years and was denied a loan. He wanted a *crummy* car loan, as he put it, and we turned him down. In this particular instance, the loan officer basically looked at the application and said you are declined. This is your debt to income ratio. You do not qualify. The officer did not take a generalized look at the customer's whole picture to see if there was another way to do it.
>
> He had a lot of equity in his home. Although he did have a lot of debt outstanding, we offered the individual a second mortgage or equity loan that picked up all of his outstanding debt plus money for his car. We ended up going five years
>
> on the note which was all he wanted to go on his car loan. However, we could give him a very good rate on that. By consolidating his higher
>
> nterest debt, he qualified for a car loan. Plus he now had tax advantages from the mortgage that he would not have had from the car loan.
>
> Since second mortgages take a while to book and he wanted to get his car right away, we got tentative approval on the mortgage and set him up on a short-term 30-day note so he could have the money to get the car. When the mortgage closed, we just paid out the 30-day note.

Using the above real-life scenario and the infusion approach to teaching thinking skills, an instructor provides students, individually or in groups, the situation. Students are directed to develop their own solution--building higher-order thinking skills. The instructor cautions students that there is not one correct answer, and that the students are not expected to develop the same solution as the branch manager who described the story. Students are allotted either a predetermined time limit or several days to consider and develop many alternatives from which to select the one they perceive to be the best. After students have developed their solutions, the instructor may allow the entire class to evaluate all of the potential solutions. Students could be given the opportunity to provide their reasons behind their solution and why they believe it is the best alternative. The class would then have more information from which to evaluate the situation further and continue building higher-order thinking skills. The class as a whole may then evaluate and select one perceived best solution to the problem presented in the real-life scenario.

The instructor would then provide the students with the outcome used by the bank branch manager that actually lived through the real-life situation. The instructor would also reinforce that there may be more than one correct answer. Even though the students may have selected a different solution than the branch manager, there is no way of determining if their solution is better or worse. This provides the students with further knowledge of the complex nature of higher-order thinking skills.

Conclusion

A major goal of the Business and Marketing Education curricula is to prepare students with the necessary skills to be competitive in today's workforce. Higher-Order Thinking Skills, one of those skills requested by employers today, can be taught by Business and Marketing Education teachers by using actual business scenarios that are relevant to the world of work. By providing instructional scenarios that are realistic, Business and Marketing Educators can equip today's students with the skills that are needed to be successful in the workplace.

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The Information Superhighway: Where are the Women Drivers?

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The worldwide Internet computer network, also known to many as the Information Superhighway, is a vast source of information and services for those who know its possibilities (Kirvan, 1994). Beginning as a tool for research and academia, the Internet has grown to a conglomeration of university, government, and corporate networks which offer news wires, mailing lists, discussion groups and databases on a wide variety of topics. The user base of the network totals 15 million, and a million new users join each year (Smith, 1994).

Soon, in this information-rich society, people who are comfortable and familiar with the Internet are going to have the edge in the job market just as the first people who were at ease with computers had an edge a few years ago. That reality is why it was troubling for this author to hear Anthony Owens, director of the Internet Users Group in Atlanta, say that out of 30 members in the beginners group only five were women, and out of 20 members in the advanced group, there were no women at all. Owens also said that this percentage was reflected in other Internet user groups with which he was familiar from around the country. Does this low membership in Internet clubs show that women are not interested in the Internet, have no time for the meetings, do not need the information these organizations provide, or is it some other reason altogether?

Conducting an unscientific experiment, this author asked for opinions about current events on some Internet Listservers. In addition, the respond-ents were asked to indicate if they were male or female. Male respondents were 2:1 over female respondents. Though the experiment needs to be repeated with more structure and control, the results from this one were a little sobering and call for more study. Where are the women on the Internet?

Are there fewer women on the Internet because there are fewer women who do not use computers for anything other than word processing? According to National Science Foundation, there are three times as many men as women who earn computer science degrees, and the bulk of women who find work in the computer industry are clustered in low paying jobs (Morse, 1995). The question is why?

Numerous studies (Colley, Gale, and Harris, 1994; Durndell & Lightbody, 1993; Kirk, 1992; and Siann, et al, 1990) have reported on the gender differences in computer attitudes and usage in school. These studies found that males have lower computer anxiety, higher confidence, and greater liking for computers than females. Other results indicated that girls become less frequent computer users as they progress through secondary school, there are few role models for girls in computers, girls still perceive a computer specialist as one who works at a terminal all day having little contact with humans, and boys spend more of their leisure time in computer-related activities. The consequences of these attitudes are not good. Girls who are computer-avoiders have been found to have lower confidence and self-esteem, poorer preparation for the business world, and reduced occupational and economic success (Sanders, 1993). These girls become the women who must compete in our technological society.

Some people (Morse, 1995) blame computer games for the gender discrepancy. Games are usually the first contact that children have with computers. Many computer games are violent with a kill-or-be killed theme. The majority of people who purchase these games are boys. Morse (1995) says that computer games, though considered by some to be mindless activity, are *frequently the gateway to using and appreciating more sophisticated technology, and girls are being left out*. Companies need to produce more games that are gender-neutral or with the problem-solving and cooperative aspects that appeal to girls.

Women will spend an average of 34 years during their lifetime working for pay (Sanders, 1993). To avoid the glass ceiling and low pay that is still prevalent in many organizations (Glass Ceiling, 1991), women must obtain as many advantages as possible and as early as possible. Being computer literate is one definite advantage. Girls should be exposed to computers in the home

and school as much as possible and be encouraged to use them. Females in the computer industry should be introduced as role models to students. Girls should be encouraged to enter computer-related fields in college. Studies should be conducted to find out how to get more women involved in using the Internet and other technological advances. Women cannot afford to be left on the side of the road on the Information Superhighway.

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Weathering Change in the North Carolina Community College System

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The North Carolina Community College System is experiencing significant change. As our fifty-eight colleges grow and our students become more mobile, the problems of duplicative curriculum offerings and identified service areas become increasingly political. As a result of the Government Performance Audit conducted in 1992, the General Assembly sponsored special legislation requiring the community college system to study certain issues such as regionalization of programs (Senate Bill 27). The legislation led to the formation of fourteen task forces which met during 1993 and 1994 to conduct studies and make recommendations to the State Board of Community Colleges and to the Legislative Education Oversight Committee. In 1994, a special provision was attached to the state budget which requires the State Board to approve curriculum program offerings at community colleges only if the programs have been developed using a regional planning approach. As a result of the legislation, the State Board placed a temporary hold on curriculum approvals until a regional curriculum planning process can be developed.

Department of Community Colleges staff evaluated the regional planning requirement and examined current procedures which regulate curriculum programs in the system. The staff developed a plan for re-engineering programs which will met the requirements of the legislation and will also streamline and update the program procedures. Included in the re-engineering plan are (1) a review of the existing 280 curriculum titles to determine whether or not there are duplicative program titles; (2) the development of a common course numbering system and a common course catalog for the system; (3) the implementation of a yearly desktop audit for program review; and, (4) the development of a regional curriculum planning process. The State Board of Community Colleges has approved the proposal, and implementation will begin in January 1995.

The re-engineering process is expected to take three to five years. The proposed changes are systemic and will affect every curriculum program and every curriculum instructor in the community college system. The changes need to be driven at the college level, so it is essential that faculty be informed and involved in the process.

Implications of SBM for the Preparation of Public School Teachers and Administrators in North Carolina

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The purpose of the study was to investigate the changes that have taken place in area schools and school systems in response to state legislation concerning site-based management (SBM). Research questions listed below were used to provide specific direction to the investigation. Implicit in each of the questions was the concern for identifying the implications for teacher and administrator preparation programs in institutions of higher education. The target group of individuals to whom the questions would be directed were teachers and administrators in Granville, Johnston, and Wake Counties who had substantial experience with efforts to implement SBM in their schools or school systems, both positive as well as negative, and who were perceived by their peers as leaders in restructuring efforts.

1. How has SBM been implemented in the public school systems of Granville, Johnston, and Wake counties? What definitions have evolved, what strategies have been employed, how have roles changed, what changes have occurred, what barriers have emerged, and what overall impressions do educators have of SBM?
2. What were the most significant experiences with SBM encountered by leaders in school restructuring during their development as leaders?
3. What were the most critical lessons learned by restructuring leaders from each of the significant experiences they encountered with SBM?
4. What professional development activities prepared restructuring leaders for SBM?
5. What recommendations did restructuring leaders have for improving the educational programs of future teachers and administrators to better prepare them to function in SBM environments?

Methodology

Due to the tremendous variation associated with the problem being investigated and the inherent nature of the research questions, the study utilized a qualitative approach and methodologies commonly associated with that type of research. Essentially, the study involved the use of open-ended interviews with carefully selected individuals in area schools and school systems to gather data relevant to the stated research questions. Participants interviewed during the study were 38 educational leaders selected from the targeted school systems. The group consisted of 20 teachers and 18 administrators, although no attempt was made to stratify on this variable as one might do in a quantitative study.

Description of SBM

The restructuring leaders were asked to describe SBM as it was currently being implemented in their schools and school systems. These descriptions created settings for understanding their experiences and the lessons they learned. Respondents briefly explained the processes being implemented in their schools and school systems, including explanations of their specific roles. They also shared information about resulting changes in their schools and specific examples of the impact of SBM. Finally, they were asked to identify major barriers to effective implementation of SBM and describe their overall impressions of SBM. Detailed summaries of participant responses are contained in the full technical report of this study.

Developmental Experiences

Based on their involvement with SBM, the restructuring leaders were asked to identify experiences which significantly impacted the implementation of SBM in their schools or school systems and which significantly influenced their development as leaders in school restructuring. The personal developmental experiences that stood out in the minds of these restructuring leaders were classified into four categories: SBM Implementation Strategies, SBM Innovations and Changes, SBM Leadership Roles, and SBM Professional Development Activities.

Lessons Learned Through Developmental Experiences

The lessons the leaders learned from their experiences were categorized into ten areas. They are reported in the order of the relative magnitude of their contributions to the development of the restructuring leaders interviewed in the study: collaboration skills, communication skills, decision making skills, management skills, time management skills, SBM process skills, leadership skills, community relations skills, accountability, and professional development.

Professional Development Activities of Restructuring Leaders

The restructuring leaders were asked to describe any professional development activities in which they had been involved that prepared them to function effectively in a SBM environment. For organizational purposes, these are classified as pre-service activities and in-service activities and are described in the full technical report.

Recommendations for the Preparation of Future Educators

Restructuring leaders were asked for their recommendations to improve the preparation of future teachers and administrators by better preparing them to function in SBM environments. Their responses are summarized in the full technical report.

Recommendations

Conclusions and recommendations from the full technical report are summarized as follows:

Recommendation 1:

Raise the awareness of college faculty and administration regarding site-based management through professional development activities. It was concluded that an important starting point for a college's efforts to respond to the SBM movement would be to ensure that all faculty and administrators understood the concepts, skills, and values involved in effective SBM.

Recommendation 2:

College faculty and administration should model and exemplify for students the basic principles of SBM. While recognizing that the intent of this recommendation is probably already manifest in some departments and programs within the college, the investigators felt strongly that the college faculty and administrators should comprehensively examine the extent to which such practices are present in all areas and at all levels within the college.

Recommendation 3:

Review existing undergraduate and graduate curricula for both teachers and administrators and infuse site-based management competencies as appropriate. The profile of developmental experiences and critical lessons learned from those experiences by the restructuring leaders who participated in this study provides the framework for implementing this recommendation.

Recommendation 4:

Enhance field experiences to provide students opportunities for involvement in SBM activities. This recommendation was perceived as a logical extension of the third recommendation. In essence, the view was that developmental field experiences should be designed in which students could become involved in various ways with teachers and administrators while they are engaged in actual SBM activities.

Recommendation 5:

Provide in-service on SBM to teachers and administrators in the public schools; facilitate this activity by providing resources and incentives to college faculty. The findings of this study clearly indicate that local schools and school systems are in need of information, guidance, and training related to SBM in order to help them in the design and implementation of local improvement plans. Presently, they are reliant on books and other publications on the subject, private consultants, consultants from colleges and universities in other states, and visits to schools in other parts of the state and nation that have had success with this approach to management.

Recommendation 6:

To improve the public schools of North Carolina, develop educational leaders committed to collaboration. This recommendation was included to address the important role and responsibility of Colleges of Education in the state's efforts to improve the public schools. School improvement, and the improvement of student performance, represent the fundamental impetus for implementing SBM in North Carolina.

Implications for Teachers

The findings and recommendations emerging from this study make it clear that teacher preparation programs need to change significantly in order to prepare teachers to function effectively in SBM environments. Educational restructuring brings with it dramatic changes in the roles and responsibilities of teachers. Teachers are now expected to be actively and integrally involved in the management of both the school and school system. In addition to possessing excellent teaching skills, today's teachers must also be adept at collaborating and communicating with one another and a variety of audiences, leading groups in planning and decision-making activities, managing time and school resources, implementing SBM strategies at the building level, and maintaining positive relationships between the school and the community. Such expectations of teachers are radically different from what has typically been expected of teachers in the past. When these expectations are first established during SBM implementation, the effect can be traumatizing initially. In the long-run, however, true SBM represents an exponential leap forward in enriching the work of teachers and enhancing the degree to which they are regarded as genuine professionals.

SaintSERVE

Phillis Q. Ostheim

Southern Wayne High School

Sounds of laughter spilled into the hallway of the Mount Olive Retirement Village recently. The source was the cafeteria, where two rows of residents and Southern Wayne High School students sat facing each other, tossing bright, colorful balloons back and forth. Students sat side by side with residents, others kept the flow of balloons going in the middle, still others worked one-on-one with individual residents. Everybody wore smiles. Welcome to SaintSERVE... writes Lynn Williams, staff writer of The Mount Olive Tribune. Such good press coverage has certainly caused a surge of community interest for the Southern Wayne Saints.

Schools are always searching for ways to improve their curricula, challenge students to new horizons, and foster character development in students. Southern Wayne High School has risen to the challenge by providing such experiences for students through the Marketing Education department. SaintSERVE is a service learning program in which students learn and develop through active participation in organized experiences. Students volunteer at least one hour per week at the local nursing and retirement home and provide activities and visitation with the residents at both facilities. The students' volunteer efforts are expanded upon in the Marketing Education classroom when they study human relations. The service learning concept becomes an integral part of the curriculum and provides the student with skills to use in real life situations.

Service learning is an integral part of the experimental philosophy of education. Proponents of this philosophy promote the concept of students learning by getting into the community and caring for others. Service learning enhances what is taught in school and extends learning beyond the classroom walls. It is more than just volunteer work; students have lessons which prepare them for the community work followed by periods of reflection. Current research has established that the development of character, responsibility, citizenship, and values can be achieved through service learning opportunities.

Service learning initiatives are increasing nationally. National education goals state that by the year 2000, every school in America will ensure that all students will be prepared for responsible citizenship, which includes further learning followed by productive employment. Two of the objectives state that (1) all students will be involved in activities that promote and demonstrate good citizenship, community service, and personal responsibility, as well as (2) all students should be knowledgeable about cultural diversity and the world community. These goals, along with the passage by Congress of President Clinton's National Service Trust Act in 1993, have thrust service learning into educational realms.

DESKTOP PUBLISHING USING WORDPERFECT

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Introduction

One of the fastest growing microcomputer applications today is desktop publishing. There are many types of desktop publishing software available. Ventura and PageMaker are two popular packages. However, word processing packages, especially those that operate in the Windows environment, are being used more and more for desktop publishing. WordPerfect 6.0 for Windows is one of the more popular packages.

Advantages of Using WordPerfect 6.0 for Windows

There are many advantages of using WordPerfect 6.0 for Windows to perform desktop publishing. WordPerfect eliminates the need for a typesetter and designer; therefore, the cost of publishing is greatly reduced. The entire document process can take place at one's personal computer in his/her office or at home. In addition, the cost of purchasing WordPerfect 6.0 for Windows is several hundred dollars less than purchasing a true desktop publishing software package. Also, WordPerfect 6.0 for Windows is easier to learn than many desktop publishing packages since most students are already familiar with various versions of WordPerfect or a similar word processing program.

Definition and Requirements of Desktop Publishing

Desktop publishing can be defined as the use of a personal computer, software, and a laser printer to design and print high-quality documents. To perform desktop publishing applications efficiently, the computer must have a hard drive with a 486 or higher processor, 8 or more megabytes of memory, a high-resolution colored monitor with a graphics card, and a mouse or PC-Trac. In addition, a laser printer is essential in preparing documents that are acceptable for publication. Colored laser printers are becoming affordable and are very useful if one designs colored covers, interior pages, and illustrations. Also, many workstations may include a scanner for converting photographs and drawings to a format that can be used by the computer.

Desktop Publishing Terminology

Listed below are a few common terms one should know when using WordPerfect 6.0 for desktop publishing:

Alley: Space between columns.

Ascender: The part of some lowercase letters, such as b, d, and h, that extend up above the x-height.

Baseline: The bottom of the x-height on a line of type.

Copyfitting: Making varying amounts of text or typographical enhancements fit in a fixed amount of space.

Crop: Removing part of an image.

Descender: The part of some lowercase letters, such as g, p, q, and y, that extend below the baseline.

Design: Specifying how a finished publication will look.

Dingbats: Special characters that do not appear on the keyboard.

Drop cap: When the first character in a paragraph is set in a larger type size so it extends below the line.

Dummy: A preliminary pasteup to find the best arrangement of the elements in a heavily illustrated publication.

Font: A typestyle in a particular typeface and size.

Kerning: Adjusting the spacing between specific pairs of letters such as *AV*, *AW*, *AY*.

Landscape: Text printed along the length of the page.

Leading: Space added between lines of type to separate them from one another.

Line height: The distance from the baseline of one line to the baseline of the next.

Macros: Stored keystrokes that can be played to automate many repetitive commands.

Pasteup: All elements arranged on the page before printing.

Points: Units used to specify measurements that relate to type sizes and spacings. A point is equal to 1/72 of an inch.

Portrait: The orientation of a normal document. Text printed across the width of a page.

Pull-quotes: Short extracts from the text set off with rules or a box.

Sans serif: Character that does not contain a small stroke or cross mark (a curve or small tail) at the edge.

Serif: Small strokes or cross marks that finish off the main strokes of a letter.

Sidebars: Sections of text related to but not included in the body of a document that are set off by being enclosed in a box.

Thumbnails: Rough sketches used in the design process that show how text might be arranged on the page.

Tracking: Adjusting the space between letters and words. Tracking affects all characters.

Type size: The size of the printed character from the top of the type's ascenders to the bottom of the descenders.

Typeface: A type's particular design--distinctive proportions and thicknesses of lines.

Typestyles: Varying style of a typeface based on its case, slant, thickness, or width. Includes boldface, italics, and normal.

White space: Empty space around or within the page.

X-height: The height of lowercase letters, not including their ascenders and descenders.

Using WordPerfect's Desktop Publishing Features

WordPerfect 6.0 for Windows includes many desktop publishing features which give documents a professional appearance. The following is a list of some of the basic to advanced features available and the documents that can be created.

- Hyphenation, flush right, and hard space features to enhance line endings
- Special symbols and cursor advancement
- Abbreviations feature to insert commonly used words, names, or phrases
- Template documents, called ExpressDocs, to create business cards, certificates, signs, letters, memos, press releases, and many more documents
- Graphic images including eight different graphics boxes--figure, table, text, user, equation, button, watermark, and inline equations
- Horizontal and vertical lines
- Draw feature to create one's own graphics images
- TextArt feature to distort and modify text into a variety of shapes
- Newspaper and parallel columns to create newsletters, agendas, and resumes
- Tables feature to create columns and rows of information that are surrounded by horizontal and vertical lines and spreadsheets
- Charts or graphs to present numeric data

Steps for Completing a Desktop Publishing Document

- *Creation Phase:* Document is written and rewritten until everyone in the process is satisfied.
- *Production Phase:* Document is prepared for the printer. WordPerfect features are incorporated into the document including various font sizes and styles, lines, charts, graphs, and other features.
- *Manufacturing Phase:* Usually a rough draft is printed so that proofreading can be completed before final page layout is begun. After proofreading, the text and illustrations can be arranged on the screen. When the page layout is complete, a final copy may be printed. This camera-ready copy can be distributed as is, copied on a copy machine,

or sent to a printer if a higher-quality publication is required.

- *Printing and Binding Phase*: For hundreds or thousands of copies of a document, offset printing and binding provided by a commercial printer is usually the least expensive way of publication.

Conclusion

WordPerfect 6.0 for Windows is an excellent choice for performing desktop publishing. This software is easy to learn and is affordable. WordPerfect's many features allow businesses, industries, educational institutions, and individuals to produce documents from start to finish that are ready to be copied and distributed. Some of these documents include letterheads, business cards, forms, brochures, newsletters, proposals, manuals, reports, and announcements. The popularity of desktop publishing using WordPerfect 6.0 may be attributed to the fact that it reduces the time and money required to do a professional-looking job. However, desktop publishing requires a proficient knowledge of WordPerfect's features and the principles involved in the publication of documents.

The Future is Now With Interactive Television

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Many issues are confronting education today, and one of the most significant may be the increased utilization of technology. Telecommunications technology provides learning benefits which include individualization and elimination of time and distance barriers. Interactive television (ITV) is one approach to distance learning that differs from traditional instructional television due to the capability of simultaneous audio and video communication. The ITV classroom allows the students and professors to hear, see, and communicate directly with each other, even when they are many miles apart.

MSU Experiment

Two-way interactive television (ITV) permitted Murray State University to offer a course to multiple sites simultaneously. ITV systems required the use of fiber optics, coaxial cable, microwaves, or telephone lines to transmit audio and video signals to distant points. This experiment used telephone lines to connect three classrooms. All three ITV classrooms were equipped with a teacher station, two monitors for student viewing, a monitor for instructor viewing, three cameras, several low-profile microphones, and external speakers. The originating site's three cameras were positioned on the instructor, a work area at the teacher station (in lieu of the chalkboard), and the students. The only camera in use at the remote (distance) site was focused on the students. The instructor was physically located at the originating site, and there was no proctor or facilitator at the remote site. The instructor had an ITV technician available in the event of system failures or need for adjustment in audio or video quality. Also, the remote site had a proctor during examinations.

ITV Challenges

ITV presented significant challenges to the instructor as well as the students. For example, because there were no camera crews or television producers at either site, the instructor had complete responsibility for switching the camera. During lectures, the instructor selected the camera so students at the remote site could see and hear the presentations. The instructor also had the option to select the secondary work area camera. Usually, this secondary camera was positioned on a small portion of the surface of the teacher station. Therefore, a chalkboard and overhead projector were not needed. The third option for the instructor was to select the student camera which permitted students at the remote site to see, hear, and communicate with students at the originating site. The instructor selected cameras by using a remote control similar to the type one would use with a television set.

Originating-site students had the choice to either view the instructor in person or watch the lecture on a classroom monitor. This monitor projected the same picture that was available to the remote-site students. Surprisingly, despite the presence of the instructor in the classroom, most students tended to focus their attention on the monitor. These students also were allowed to view another monitor which showed the students at the remote site. Students had access to a microphone so they could communicate with students at the remote site without leaving their seats.

Clearly, the ITV classroom exposed students to a different learning environment that challenged their ability to adapt. Also, the ITV format required some adjustments in teaching style. The instructor was restricted from moving about the classroom, and boardwork had to be done on a sheet of paper at the teacher station. Early in the semester, both instructor and students were preoccupied at times with the technology. This became less evident as the semester progressed.

ITV Course

The course chosen for this study was Communication Skills for Managers. This course was an elective for students enrolled in the MBA program. The originating site was Murray State University (MSU). One remote site was 50 miles away at a community college, and the other remote site was 100 miles away at another community college. The instructor visited the remote sites one time during the semester and

had all three sections meet together at MSU once. All three sites met together at a central location for the final examination.

Assessment of Effectiveness

The effects of an ITV delivery format on student attitudes in a graduate level business communication class were examined. The influence of student backgrounds and abilities were assessed to learn the effectiveness of the ITV delivery format. Through these efforts the possibility of targeting ITV courses at certain specific student populations and suggestions for making the ITV format more effective were uncovered. Directions in which future research efforts could further evaluate the ITV format were identified.

Student Assessment

The students stated a few advantages of ITV. They indicated that the teacher was very enthusiastic and tried to involve all of the sites. Most of the students preferred this type class in lieu of driving to MSU for the class. They also indicated that they made friends and acquaintances, both locally and in other counties. The students enjoyed the fact that there was a definite savings in physical fatigue, time, and money for the students in the remote sites.

There were some disadvantages such as some students found the ITV format very distracting and impersonal. They felt there was little opportunity to interact with other students and that the communication environment was terrible. It was difficult to hear at times.

Institution Policy Adjustment Needed

It is of no coincidence that the emergence of ITV in higher education comes at a time of fiscal restraint and growth in nontraditional student enrollment. ITV is an opportunity to confront the challenges of budgetary constraints and declining enrollments. However, there are several policy issues that institutions must address. First, a commitment must exist to acquire and maintain the best possible ITV technology. Continually seeking to improve video and audio quality is likely to enhance student and faculty acceptance of ITV.

Second, institutions must supply ITV faculty with adequate training and resources necessary for effective course development and improvement. A simple orientation session for faculty is not sufficient. As a result of feedback offered by business instructors who used the ITV format in the early stages, a week-long training session is now offered during the summer to prospective ITV instructors. All MSU participants in the training session prepare sample lectures, give the lectures using ITV, and are critiqued on ITV delivery. Participants found this workshop very helpful. In addition, summer grants were made available to ITV faculty, and the faculty resource center was helpful in training as well as in the preparation of instructional materials.

Third, institutions should not concentrate on requiring all faculty to teach via ITV. Faculty support and involvement is desirable, but the teaching should be assigned to those who desire to teach over ITV. The use of ITV specialists will enhance student performance and attitudes relative to ITV. Fourth, institutions must be careful not to abandon ITV efforts too early. An adequate implementation period must be long enough to accurately assess the effect of ITV on student learning and attitudes. Finally, institutions must offer faculty a real incentive to participate. Faculty release time, substantial supplemental stipends, and the consideration of ITV participation toward tenure and promotion are necessary to encourage faculty enthusiasm and support for ITV.

Conclusion

ITV may be one approach to eliminate time and distance barriers to education. Further, ITV can assist educational institutions in providing learning opportunities in an era with continued emphasis on fiscal accountability. However, for ITV to be judged as an effective tool, ITV must have a proven track record that it is effective when compared to a traditional classroom setting. Murray State University is an example illustrating the future is now with ITV!

Business Ethics Using A Teaching Model

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This thing called *ethics* has certainly been getting a lot of publicity during the last few years. Just from the television news, many teachers are learning the lessons of ethics and particularly business ethics. Thus, one must pause and think, *Am I teaching business ethics in my classroom? Am I teaching my ethics? Or, am I teaching someone else's ethics?* Probably most teachers believe that they are teaching *ethics* when they teach good work skills, honesty in customer services, efficient use of supplies and telephone, and confidentiality. And, they probably are. However, do teachers actually teach a lesson on *ethics?*

This article presents some examples of modern ethical dilemmas, offers some explanations for ethics, and suggests a teaching model for teaching ethics. These areas seem to be the most needed points for a successful lesson plan in teaching ethics.

Ethical Dilemmas

When students watch television today (and specifically the news), they hear and see men and women being arrested or charged with illegal acts or crimes. Several seem to be centered around business situations involving business professionals who are charged with major responsibilities. While this paper does not address the need for heros in United States businesses, this paper does address the point that several leading businessmen have been charged and convicted with illegal acts. Do the following names sound familiar (Smeltzer and Leonard, 1994): Ivan Boesky, insider trading laws; Michael Milken, junk bonds; Charles Keating, misrepresented invest-ments; and most recently Sonny Block, coins investments--currently under suspicion.

Other names that have made the news are Beechnut Baby Food Products, little to no apple juice in the apple juice; Lyle Alzado, steriod use; and Karen Silkwood, accusations against Kerr-McGhee oil refinery (Marshall, 1975). Perhaps when current events topics were discussed in class, teachers had to address these issues and many more. The problem encountered with teaching or addressing ethics is to decide what approach is the *best* approach. Recently during a discussion on ethics, a professor asked, *Who's ethics are we going to apply? There is, in fact, no ethics.* This statement is alarming considering that several people may be interpreting ethics as being what is *right* or *just* at this moment in time.

Ethics Defined (Maybe)

When people begin to think about a possible definition of ethics, they typically begin to think of situations that involve *right or wrong* decisions. Thus ethics does have its basis of understanding in right or wrong behaviors. To better understand this right-wrong concept, several suggestions for definitions will be discussed.

Utilitarian

The basic understanding of utilitarian ethics is the *greatest good* for the greatest number of people (Himstreet, Baty, Lehman, 1993). This can cause individuals some discomfort as individuals want to have their needs met even at the expense of others. However, if people are taught that the world will/could be a better place if all people were striving to make it better by caring for each other, then this utilitarian approach to ethics would/could work.

Theory of Duties

According to Ross (1930), the theory of duties, also called pluralism (Rasberry and Lindsay, 1994) includes: not harming innocent people, keeping promises, showing gratitude, acting in a just way, and providing reparations to those who have been harmed by another's actions. If people were to follow this theory of duties, the world would be one of almost complete harmony. Consequently, a harmonious world is what in needed to have a completely ethical society.

Quaker

"In all your dealings, leave other people at least as well off as you found them."

Golden Rule

"Do unto others as you would have them do unto you."

A Teaching Model--The Pagano Model

Mathison (1988) suggested the following steps found in the Pagano Model be given serious consideration in determining if an act or issue is ethical:

- Is the act/issue legal--from its concept?
- What are the benefits and costs to the people involved?
- Would you want this act to be a universal standard, appropriate for everyone?
- Does the act pass the light-of-day test? [If your actions were recorded and shown on television, would you be proud?]
- Does the act pass the Golden Rule test?
- Does the act pass the ventilation test? [Ask for the ethical opinion of a wise, disinterested friend.]

Summary

Teachers are most certainly involved in the teaching of ethics to their business students. This article discusses in its simplest form what ethics is and the importance of teaching ethics. Although several approaches could be used to teach ethics, teachers should select the best methods and utilize them in effective teaching of ethics.

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Experiencing Business and Academic Integration Through a Case Study Approach

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Case studies based on recent research completed for the National Center for Research in Vocational Education on **TEACHERS' ROLES IN THE INTEGRATION OF VOCATIONAL AND ACADEMIC EDUCATION** (Schmidt, Finch, & Faulkner, 1992) can help in developing effective strategies for achieving integration of business and academic skills. For the research, interviews were completed with teachers, guidance counselors, and administrators at ten school sites nominated as exemplary for their integration efforts. The interviewees provided information about specific events teachers experienced as they successfully implemented the integration. The behavioral event interviews conducted with 109 individuals at the ten sites, located across the United States, provided details about what the teachers did to achieve the integration, and how they felt about the integration.

The series of 46 case studies (Schmidt, Finch, Faulkner, & Kandies, in press) is designed to help teachers assume roles needed to facilitate the integration. The case studies can be used with practicing and prospective teachers to help bridge the gap between learning the concepts underlying the integration of vocational and academic education and actually implementing it. Use of case studies as a learning tool reveals that individuals using them enjoy the cases and, in the process, develop problem-solving and decision-making skills. Through the cases, users can search for examples of successful integration strategies demonstrated by the behaviors of key players in the integration process, and inversely, the absence of effective strategies. The cases provide a non-threatening environment for discussing concerns educators involved in, and about to undertake the integration, might have. Further, the case studies can serve as an excellent tool for team building among teachers, guidance counselors, and administrators.

The cases are organized into four functional themes that emerged from qualitative analysis of first-person summaries from the 109 interviews. The four themes, which the interviewees detailed through their own experiences in implementing the integration, are (a) cooperative efforts, (b) curriculum strategies, (c) instructional strategies, and (d) administrative practices and procedures. The first three themes represent stages of development teachers experience as they implement the integration. The administrative practices and procedures theme provides examples of administrative actions that impact the teacher efforts both positively and negatively. Brief descriptions of the three stages of teacher development follow along with a synopsis of a case developed for each stage.

Stage 1

This stage includes cooperative efforts involving the teachers knowing or learning about one another as a basis for mutual support; helping each other by sharing information about students and instruction; and coordinating details of planning and instruction.

Don't Step on My Toes

The principal's announcement that academic and vocational teachers would form teams to align curriculum so student communication skills would be improved invoked a variety of comments from the faculty. An English teacher was heard saying, "This is not working, the vocational teachers don't see any need to change, and I don't either." One vocational teacher noted that each group was thinking, "You are

not going to step on my toes; you are not going to start changing what is in my territory."

Stage 2

This stage includes curriculum strategy efforts involving teachers meeting to plan initial projects and activities; changing from past procedures as required to meet their new plans; and working together to design aligned, enhanced curriculum.

The Business of Learning

A Marketing teacher, an English teacher, and a Biology teacher teamed together to form a business academy aimed at helping at-risk students gain confidence. The teachers decided that the students would form their own business enterprise for the purpose of developing and marketing a product. A local oil company agreed to support the project, with the students deciding the product would be motor oil. The students designed a bottle and accompanying label, and they wrote a commercial and rap song related to the product. They sold 180 cases of the oil, realizing enough profit to start another business next year. The Marketing teacher noted that as an outcome of the project the students exhibited a renewed excitement that is very refreshing.

Stage 3

This stage includes instructional strategy efforts where teachers initiate integrated instruction and emphasize learning through application; teach cooperatively through joint assignments, aligned instructional units, and team teaching; and use resources from the community to enhance their aligned instruction.

But, It Takes Time

The principal decided to implement the integration of vocational and academic education by first involving the Business, Mathematics, and English teachers. The principal sent them a memo asking that the Business teachers plan, execute, and summarize at least one activity per month coordinated between their classes and a Mathematics or English teacher's class. One of the Business teachers decided to plan integrated activities with English thinking it would be a natural blending of subject matter. The teacher experienced a number of frustrations in trying to ascertain when the English teacher was going to teach certain things. Further, she found she *had to teach ways of doing things the way the English teacher preferred*. Further, she had to adjust the schedule of her class to coordinate what she was teaching with the English teacher.

Conclusions

By field-testing the case studies in a variety of workshop and classroom settings with both practicing and prospective educators, insight was gained into how the cases may be used most effectively. More than a dozen different instructors and more than four hundred participants used the cases. From their input, suggestions are provided for understanding purposes the cases can serve, selecting appropriate cases, and managing the instructional setting in the case study publication, **PREPARING TEACHERS TO SUCCESSFULLY INTEGRATE VOCATIONAL AND ACADEMIC EDUCATION: A CASE STUDY APPROACH** (Schmidt, Finch, Faulkner, & Kandies, in press). The publication also contains a Chart of Cases which includes the title, type of school setting, teaching areas, and a brief description for each case. The chart is particularly useful in gaining an overview of the cases and in selecting cases that relate to particular needs. Procedures followed in developing and field-testing the case studies are reported in the publication **CREATING RESEARCH-BASED CASE STUDIES TO ASSIST TEACHERS WITH ACADEMIC AND VOCATIONAL EDUCATION INTEGRATION** (Finch, Schmidt, Moore, & Perry, in press).

The basic guideline for use of the cases is that they be employed to enhance and improve educational practice. Through discussion of situations confronted in the cases, the process of implementing the integration can be accelerated. Communication between and among educators in school settings where integration efforts are underway is essential. The first-hand experiences related in the cases provide a springboard for open communication and collaboration among educators in these settings.

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Does Color Really Work in Increasing Interest in Business and Marketing?

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The 1990s have experienced a surge of interest in Multimedia and its potential to increase worker performance and organizational effectiveness. Color graphics interface is a major component of today's Multimedia systems. Vendors are placing increased pressure on managers of marketing and managers of information systems to use color printing and copying. Although positive claims are voiced concerning the value of color graphics, little research exists to verify the impact of color graphics on how a reader processes, interprets, and remembers information. Nor have the costs of using such technology been examined. A need exists to determine if incorporating color in hardcopy documentation is worth the cost. Quality color printers often cost in excess of $4,000, and producing multiple copies on a color copier is also expensive.

Although the effects of color have been widely studied from a variety of perspectives, much of the research has resulted in inconclusive and often conflicting findings. Little doubt remains that color affects people, both psychologically and physiologically. Much of the early research focused on determining the effects of color when associated with such variables as anxiety, happiness, excitement, and other related attributes.

In the examination of color used within business documents, other studies have reported that the addition of color to pie charts and bar graphs improved the reading time performance (Hoadley, 1990). McGraw-Hill Publishing Company found that the addition of color to a memorandum increased readership greatly. Maquire (1991) discovered that color can increase retention and raise a reader's tendency to act on the information. Marketing studies have also found that newspaper readers prefer the use of color in newspapers, and the use of color advertisements increased reading of the copy in the advertisement by 80 percent (Green, 1984).

However, some research disputes these claims. For example, Katzman and Nyenhuis (1972) did not find that color enhances the comprehension of graphs, and Tullis (1981) did not find that color necessarily increased task performance. Other researchers have found little or no correlation between learning and the use of color. Gremillion and Jenkins (1981) summarized their research with the suggestion that even when color is found to be useful, usually little operational significance is a result.

Problem and Purpose

The problem of this study was to analyze four information presentation methods--text, tabular, black-and-white graphics, and color graphics--and the variables of reader retention, reaction, and reading time. Findings concerning these three variables could influence organizational productivity and effectiveness. Also, the use of these variables allows the comparison of findings from this research with findings from other studies. The purpose of this study was to analyze the relationship between method of presentation of statistical data and level of reader retention, level of reader reaction, and reading time when analyzed by gender, academic major, and student-reported grade-point average (GPA).

A report of six pages was written on the topic of current trends in employment. Version I of the report was totally narrative; version 2, narrative

with tables; version 3, narrative with black-and-white graphics; and version 4, narrative with color graphics. The report content for each version was the same except for the method of presenting the statistical information.

Population and Research Design

The population consisted of business students from three midwestern regional universities accredited by AACSB. A total of 746 students enrolled in a course required of all business majors was randomly selected to receive one of the four reports. The students were asked to read the report, record their reading time, and answer 25 questions recalling content from the report they were given. Their retention score was the number of correctly answered questions. In addition, the students were asked to indicate their reaction to the report by checking a Likert-type scale (1-7 range) concerning 10 pairs of opposite words: efficient, inefficient; unclear, clear; straightforward, cluttered; unappealing, appealing; uninformative, informative; logical, illogical; good, bad; organized, unorganized; concise, wordy; and worthless, useful. The reaction score totaled a possible 70 points.

The experimental/control group with randomization design described by Kerlinger (1973) was followed. The design has one independent variable that was manipulated, which is the method of presentation--narrative only, narrative with tables, narrative with graphics not incorporating color, and narrative with graphics that incorporates color. The dependent variables tested were reader retention, reader reaction, and reading time.

The following hypothesis was tested: no significant relationship exists between method of presentation of statistical data and level of reader retention, level of reader reaction, or reading time when analyzed by gender, academic major, and GPA. Statistical analyses were conducted using analysis of variance methods; when required, post hoc comparisons were conducted using the Scheffe test. A .05 level of significance was used in all tests.

Selected Findings of the Study

- Males reading the color graphics presentation retained more information than did females reading the same document.
- The narrative with color graphics report achieved the significantly highest reaction rating.
- A significant interaction existed between method of presentation and grade-point average for version 2, narrative with tables. Those students with a GPA of 2.0-2.9 (on a 4-point scale) reported a significantly higher reaction rating than did those with a GPA of 3.0-4.0.
- The mean reading time was significantly greater for reports written in narrative only than for the other report versions. The mean reading time of those reading the report incorporating color graphics was not significantly different from the mean reading time of those reading the report with black-and white graphics.

Conclusions and Implications

The findings of this research study confirm that in today's technological environment, color does increase a reader's psychological reaction to a document. However, as found in previous studies, color presentation does not necessarily improve retention and reading time.

When customer reaction is not a major concern, managers should question the value of investing in color resources to produce color hardcopy documents. However, the positive reaction toward the use of color that emanates may be of significant value when working with external publics. In all likelihood, as the cost of color equipment continues to decrease, this option will undoubtedly become more cost effective and popular.

An Outsider on the Inside: A Candid View of the U.S. Department of Education

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The U. S. Department of Education--Americans hear of it, Americans support it with tax dollars, and Americans are affected by it. The questions become, who are the people making these important decisions, what really occurs behind their doors, and what services do they provide to teachers and students? During the summer of 1994, some of those questions were answered. As an academic intern in the Office of the Secretary of Education and working for the Special Advisor on Teaching--I was *an outsider on the inside*.

During my four years as a Business and Computer teacher for a public school system, limited exposure to the U. S. Department of Education was available. This exposure involved directives to complete and submit paperwork at the end of every semester to the vocational director. These requirements filtered down from the federal level, through the state, and to the local education association. Other than this, nothing was heard about the *feds*. My experiences proved, however, that there is more to the Department than paperwork. There are real people at the Depart-ment of Education who care about teachers and students and who offer numerous, varied resources to teachers and students as they pursue their educational goals.

Working at the Department of Education with Terry Dozier, Special Advisor on Teaching, was an exciting and enlightening experience as well as a unique opportunity. Secretary Riley appointed Terry Dozier, the 1985 National Teacher of the Year, to work on his immediate staff as his Special Advisor on Teaching. This position is a first of its kind in the history of the Department of Education. In her role, Terry provides a classroom teacher's perspective on the development of policies, programs, and legislation. She serves as a *reality check*. Terry has also implemented several programs to reach teachers in the field, listen to what they have to say, and share their insights and experiences as the Department formulates its policies and support services.

While I was at the Department, I was exposed to a wealth of information, much of which is available free to the public; attended Department-sponsored events; and participated in several policy-development activities. Highlights of this internship include:

- Opportunities available for academic internships, teachers-in-residence, principals in-residence, and summer employment
- Development of and proceedings from two Teacher Forums: (a) Presidential Scholar's Teachers on professional development, and (b) National Geographic Society Instructional Leadership Institute Teachers on the development of national standards
- Teacher Shadowing Program
- Satellite Town Meetings hosted by the Secretary and Deputy Secretary
- Newly-developed professional develop-ment criteria
- On-line discussion group for teachers
- Goals 2000: Educate America Act of 1993
- School-to-Work Opportunities Act of 1993
- The Department's role in the re-authorization of the Individual's with Disabilities Education Act and the Elementary and Secondary Education Act
- Resources (free and nominal fees) available to teachers, including **A Teachers Guide to the Department of Education, A Teacher's Guide to Grants in the Federal Government,** and **Community Update**, the U. S. Department of Education newsletter

Working as an academic intern enabled me to gain substantive knowledge regarding the people and practices at the U. S. Department of Education. The intention in sharing these experi-ences is to provide teachers with a window into the Department of Education. This information will give teachers added insight into the Department and additional resources to utilize as they prepare our nation's students.

Does the Business Education Curriculum Need Disinfecting?

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Computers touch every aspect of our lives! Just as American communities are threatened with drugs and violent crimes, this nation's computer networks are threatened by computer viruses. This is equally true in the Business Education curriculum. Before the advent of the computer age, the word *virus* was thought of as a disease that infected the human body. With the computer gaining immense popularity in the last thirty-plus years, the term *virus* now has a new application. Just like a virus infects the human body, it also infects computers.

A computer virus is a reproducing block of code that is spread by transferring executable files from a floppy disk, from a network, or by downloading an executable file through a modem. A virus enters a healthy computer, and it can destroy data files, stored programs, and even computer components. Mainframes, minicomputers, and personal computers are all susceptible to viruses.

Computer viruses may be classified into three classes: boot infectors, system infectors, and generic application infectors. Boot infectors attach themselves to either the disk bootstrap sector or the partition bootstrap sector and change the substance of the sector by substituting the fraudulent contents for correct data. The correct data in the booting process is usually placed at another location on the disk which permits the fraudulent version to be executed first. Viruses that have infected the boot track gain control when the system is first activated and remain in control at all times thereafter. System infectors and generic application infectors are usually parasitic viruses which change the makeup of .EXE files and/or .COM files. System infectors enter the computer usually in a carrier or Trojan horse program either (1) when an infected disk is placed into the computer or (2) when a program is downloaded via a modem from a bulletin board. They can infect command interpreters, system input/output (I/O) routines, or special-purpose drivers for attached hardware. When system diskettes are inserted into one of the floppy drives, the virus replicates onto the system files.

Generic application infectors can infect any application program. They gain control when an infected application is executed and then scan the system looking for additional hosts on hard disks or floppies. When found, they attach to the new hosts. These viruses may leave the majority of the infected program alone while attaching itself at the beginning or end of the file, thereby changing the file size. Others insert themselves internally in the executable host program's dead space. The program functions normally remain unchanged, but the start up instructions in the program are altered. After the virus scans and infects, it passes control back to the application program.

Viruses may remain dormant for any period of time. They may be triggered or activated by any number of events such as the occurring of a specific date like Friday the 13th, the evoking of a particular command, or the beginning of the booting process. Warning signs of infection include program loads taking longer than normal, unusual prompt or error messages occurring frequently, less system memory available than usual, and changes in the size of files. Reducing the risk of infection can be divided into two major areas: antiviral software programs and safe user practices.

Currently there are many more software programs to protect against virus attack than there are known viruses. Antiviral programs detect, identify, and remove intruders. Typical antiviral programs will scan RAM and hard and floppy disks for infections. These programs can identify the virus infecting the system and tell whether the virus resides in memory, the boot sector, the partition table, or a file. Once the virus is identified, the infected virus program code can be deleted from the infected file or disk sector.

Another significant way to reduce the risk of viral infection is by developing a program of safe user practices. Practicing the following suggestions can decrease the risks of being infected by a virus.

- Avoid using programs with an unknown origin.
- Use only shrink-wrapped software packages and check all software for viruses before using it.
- Make regular antiviral checks of all files and programs.
- Backup hard disks and store the backup in a safe place.
- Make backup copies of all program and data files.
- Beware of programs downloaded from bulletin boards.

Viruses can be very destructive. Early detection can help, but recovering from a virus infection is more difficult than initially preventing the infection. Antiviral programs and preventive measures must be used in the business education program to help prevent viral infection and damage.

Marketing Management: Course Development and Implementation

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&

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Marketing has become one of the fastest growing industries in the United States. According to the American Marketing Association, marketing is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives. Examples of marketing activities studied include marketing research, consumer behavior, applied mathematics, and product creation, development, and positioning.

Marketing is one of the most sought after majors in business management. At the mid-management and entry levels, labor market data show thousands of marketing related jobs in finance and banking, tourism, business services, supervision, and retailing. Marketing concepts are not only used in the business arena but also to market a broad range of ideas and social causes. Examples of these ideas and social causes that have been marketed include family life campaigns, campaigns promoting the use of seat belts, anti-drug campaigns, smoke-out campaigns, campaigns promoting the prevention of teenage pregnancy, and anti-drinking and driving campaigns.

Because marketing has become a high priority in both business and social arenas and because marketing is a large occupational category, the provision of marketing instruction at the high school level requires greater emphasis. Providing Marketing Education at the secondary level should meet the needs and interests of all students. Recent studies indicate a need at the high school level for a marketing course that is more challenging and rigorous than traditional marketing courses and one that integrates academic and vocational instruction with an emphasis on academics, presents information at the analytical and critical thinking levels of learning, is useful in college preparation, and does not require on-the-job training.

Based on these needs and interests, the course entitled *Marketing Management* was developed. This course is designed for high school seniors who plan to attend college with a concentration in marketing, business administration, management, and/or who have tentative plans to manage or own a business. The course is also intended for students who plan to enter careers that require a foundation in marketing such as architecture, engineering, law, and medicine. *Marketing Management* provides these students with the marketing theory that will serve as a foundation for future study and/or owning or managing a business.

In order to meet the needs of the target audience and to successfully implement a *Marketing Management* course, four recommendations for implementation were developed by a team of experienced Marketing Management educators. Recommendations for implementation consists of four facets: (1) 17 quality control factors, (2) 10 steps for starting a new course, (3) 11 recommended promotional strategies, and (4) 13 instructional processes. The items included in each of these four facets of implementation were developed and prioritized by this team of experienced Marketing Management educators.

In addition to identifying four recommendations for implementation, this team of experienced Marketing Management educators also prepared a recommended curriculum framework. Included in this recommended curriculum framework is the following: (1) topical outline, (2) recommended teaching sequence and time allotment, and (3) content/duty areas.

Marketing is one of the most wide spread and fastest growing occupations in the United States. Knowledge of marketing concepts is important in both the business and the social arenas. To assist teachers who are planning to establish a *Marketing Management* course within their schools, a team of experienced marketing management educators was assembled to develop the manual entitled: *Marketing Management: A Curriculum and Course Implementation Guide*.

The Virtual Curriculum

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Introduction

The word virtual in modern discourse is mostly associated with Virtual Reality, the electronic construction of images that are indistinguishable from the nominal realities they purport to represent (Sorkin, 1992). In a variety of forms, virtual is mentioned in conjunction with technology, coopora-tion, workplace, teams, employees, classroom, library, community, city, and perhaps dozens of other uses or applications.

The Virtual Curriculum (VC) is based on a business model called the Virtual Corporation. If educational enterprises are to provide workforce preparation and training to create a world-class workforce, they need a response in concert with the culture of current industry trends and discourse. VC is not new; it purports the benefits of the Total Quality Management (TQM) movement in education. TQM principles surround educational operations and align them with the modern corporate culture. Similarly, VC provides a model on which to pattern and guide course development efforts to ensure responsiveness.

The VC is a model or pattern. It is offered as a systematic concept on which to foster better workforce-training relations with an emphasis on customer service. This paper examines: (a) VC as a virtual product of the educational enterprise, (b) Instructional Performance Systems Inc. (IPSI) software as a model that facilitates the virtual product, and (c) the practical advantages for using virtual technology with an implicit action plan.

Curriculum Content As A Virtual Product

The output of a development process intended for student use is the curriculum (Schiro, 1978). The curriculum is education's product. Whether or not it is a virtual product or has the capacity to be virtual depends on the commitment of the institution to make it virtual. The curriculum, with the right tools, is indeed capable of becoming virtual. In fact, every educational enterprise can position itself to have a virtual curriculum that conforms to Davidow and Malone's (1992) definition of virtual.

Davidow and Malone (1992) posit that building a virtual product requires an organization to revise itself, employ more sophisticated types of information, and master new organizational and production skills. The company that emerges will have little in common with what previously existed. According to Davidow and Malone (1992, p. 5), *The closer a corporation gets to cost-effective, instantaneous production of mass-customized goods and services, the more competitive and successful it will be.* If you substitute the word *education* in the above paragraph, you will see that the model used in business is no different than one that is capable of reforming or reengineering education.

Creating the Virtual Curriculum: Performance Instruction

The conceptual model undergirding VC is Vogler's (1991) Performance Instruction (PI). PI is the planning, delivery, and evaluation of learning and teaching. It is based upon the Vogler Curriculum-Pedagogy-Assessment (C-P-A) model (Vogler, 1991). The model is the foundation of the expert system for the three integrated software packages. The functions of the expert system are literature-based, approved practices that have been harnessed by the modern technology of a computer. The model works without the software; however, the software guides, monitors and aggregates user decisions. IPSI software is the key to making the curriculum virtual.

The *virtuality* of the model is its ability to isolate, identify,and merge portions of existing content to form a new course specially created for the client. Specific decisions, such as identifying content to be taught, determining how it will be taught, when it will be taught, and how it will be evaluated, are made and documented with the assistance of the software. The system is dynamic by providing the

infrastructure to develop functional output: a syllabus, a lesson plan, or an exam. On the other hand, the expert system is passive by providing a prescriptive manuscript that can be accessed by the user. The software flexibility is enhanced by allowing the user to override default-based decisions.

The curriculum development or planning phase of PI requires that what is to be learned and taught in a course be communicated in advance. The output of planning is a course syllabus with eight distinct elements including a header, course description, course focus, course content goals, student contributions, evaluation, schedule and performance objectives. This output is essential to the virtual curriculum, as it is the document that is shared with business and industry executives.

Practical Implications

The technology and precedents today exist to warrant adoption of the VC concept. IPSI at 938 Prairie Center Drive, Suite 130, Eden Prairie, MN, 55344, (703) 867-1927, has crafted a software suite that facilitates bottom-up development of syllabi, lessons and modules, and exam item pools essential for a virtual curriculum. Once developed, the VC components can be easily revised and aggregated for instant retrieval. The software operates on a network configuration or in the PC environment with Apple, IBM or compatible hardware systems.

IPSI trainers and instructors provide professional development experiences that permit users to become immediately productive. An interactive bulletin board facilitates quick technical response and development among user groups. Upgrades are provided free of charge for one year. Each developed course can serve as a database. Additionally, a query system is also available that checks the database for consistency with the expert system, aggregates input, compares database elements, searches for uniqueness and commonalities, and prepares virtual curriculum reports.

The software and training are most often purchased as a package through a site license. The license fee is calculated using the number of full-time faculty members. The unit price decreases as the number of users increases. Discounts are provided to encourage purchasing all three pieces. Part-time faculty are granted free access if the institution purchases a license for all full-time faculty members. The cost analysis reveals that this is far less than sending a faculty member to a conference or paying for a graduate course. Lastly, the investment in the software will usually be recouped in clerical savings within two years.

The IPSI suite is currently used in several states including Minnesota, Michigan, New Jersey, Illinois, Hawaii, North Dakota, North Carolina, Ohio, Alabama, and Texas. Community colleges, K-12 schools, and business and industrial trainers are among current users. More than 50 institutions have full site licenses that encompass more than 10,000 individual users, thus making virtual curriculum sharing an instant and efficient feature.

Summary

The link between occupational training and the skills needed in business is entering a new dimension of human resource development. Aggressive innovations and new ways of delivering a service represent a vital component in the way education operates (Leitzel, 1991). It is indisputable that educational enterprises will play increasingly important roles in workforce development. Internally, instructional partnerships between credit and credit-free instruction are critical.

The benefits of the VC were presented as a model for maintaining the respect of industry and contributing to economic prosperity through developing a quality workforce. The advantages of VC include: (a) industry executives and faculty as design teams, (b) an instantly created product (course syllabus) based on client needs, (c) reduced staff time in course development, (d) mutual dependency on subject matter exchange, and (e) improved college-industry relations.

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TAP Into Your Future! The Technology Adventures Program at East Carolina University

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Even though the under representation of females in technical fields has been well documented and some activities have been developed to address this issue, actual employment of females in these professional areas remains extremely low. The immediate future for females preparing to enter technical occupations is also not encouraging. For instance, at East Carolina University (ECU), only seven percent of the students enrolling in the industrial technology program are female. Likewise, teacher role models in programs such as Technology Education which would naturally encourage occupational choices for females are negligible.

Female representation in technical fields can be increased if activities and programs are designed to target promising young female students for careers in these areas. The Technology Adventures Program (TAP) at ECU is structured to provide hands-on experiences in a wide variety of technological areas, expand career awareness, and introduce participants to mentors currently employed in technical positions. In essence, the TAP is designed to TAP females for future entry into technical fields.

Through a grant received from the NC Department of Public Instruction (DPI), the first TAP institute was held at ECU during July 19-29, 1994. This two-week residential institute accommodated 34 female high school students planning to enroll in a technical vocational program or pursue further technical studies.

Program Objectives

The following were the objectives of the TAP program:

- Expose the participants to broad range of technology concepts through hands-on activities.
- Integrate science, math and academic skills.
- Provide career information on non-traditional technical occupations.
- Create an awareness of sex bias and stereotyping that may prevent females from entering technical occupations.
- Provide mentorship and support network to facilitate career decision making.
- Increase enrollment in secondary and postsecondary vocational/technical programs.

The Participants

The SDPI mailed promotional literature in the Spring of 1994 to local vocational directors. The material described the institute and included nomination and application material. From this process, several hundred applications were submitted. The participants were selected through criteria developed by the State Department of Public Instruction. With a similar program being offered at NC A&T in Greensboro, a selection team representing both institutes and DPI met to review the applications. The top candidates were then invited to attend the institutes.

The Program

During the two-week TAP institute, the participants attended various hands-on technology discovery modules, with each topic lasting approximately two hours. The participants were divided into four *families* to rotate through the activities during the institute. Through the guidance and instruction of professors from various ECU departments, the following modules were offered:

- Presentation Software
- Desktop Publishing
- Internet
- Robotics
- Safety & Health
- Photography
- Electronics

- Computer-Aided Drafting
- Construction Management
- Lasers
- Fluid Power
- Inventions & Creativity
- Aerospace Technology

Supporting concepts such as career orientation, critical thinking, and personal development were integrated into the participants' experience through evening discussion sessions. Invited guests from ECU and industry led these sessions. One asterisk of this program feature was a banquet held one evening during the final week. This semi-formal affair had, as invited guests, over 20 professional females representing a variety of careers. During and immediately following the banquet, relaxed *networking* was encouraged. This session was well received by the students and invited guests, so much so that local television covered the event as well as the next day's technology activities.

The TAP institute also provided several days of field trips for the direct observation of technical applications. Tours included the mining operations at Texas Gulf, the assembly of trucks at the Ford Motor Company and the Nautilus Maritime Museum in Norfolk, VA. The ECU Medical School also offered another full-day of related experiences. The institute was also fortunate to have a full-day tour at Seymour Johnson Air Force Base. This visit included a special lecture by Lt. Jeannie Flynn, the first female combat pilot. The close-up inspection of facilities and boarding of a jet were also exciting.

To assist with program management and counseling, five students (3 females, 2 males) from the Department of Business, Vocational & Technical Education served as resident counselors. Each counselor was responsible for supervising their *family*, coordinating group activities, and serving as a contact person. With many of the participants being away from home for the very first time, the counselors proved to be invaluable for the smooth operation and camaraderie developed during the two-week institute.

Program Follow-Up

A program evaluation was conducted after the institute was complete. A survey was sent to the participants, asking them to rate the modules, instructors, tours, evening activities, counselors and directors. They were also requested to comment on their career plans and whether the TAP program made a difference in their choices. From the survey results, the program was judged to be an overwhelming success. Favorable comments were made regarding all facets of the program. As far as career choices, a number of participants indicated new directions in post-high school education, with technical fields a distinct option.

Plans for Next Year

Because of the results from the first TAP institute at ECU and the availability of additional funding, a grant was awarded to have another institute held in Julne 1995. Plans are to invite 40 females and provide many similar activities/ technology modules. From the survey results and suggestions, new activities and tours will also be incorporated.

Conclusion

The need to broaden the awareness and opportunities to young females in the area of high technology will undoubtedly remain an important issue. It is hoped the TAP at ECU helped to expand and encourage the options available to 34 young females that attended the first institute during the summer of 1994. It is anticipated that the institute will continue to provide a positive experience to capable young females in the future.

Virtual Reality for Business and Marketing Education

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Introduction

During the early 60s, Business Educators recognized the importance that computers would have in our society when it became apparent that the computer with its vast computational abilities could maintain and process traditional financial information. Subsequently, data processing emerged, and teachers set out to train computer programmers to solve the record-keeping problems in the business world. Then, in the early 70s, it became evident that computers were the answer to document processing when the concept of word processing emerged and developed. As the microcomputer evolved during the 80s, Business Education teachers soon discovered the necessity of teaching computer business applications as the proliferation of word processing, spreadsheet, database, and telecommunication software packages made it possible for even the smallest of businesses to acquire computer hardware and software. During the late 80s and early 90s, laser printers and graphical user interfaces (GUIs) such as Microsoft's Windows have heralded new uses for microcomputers in the business world when desktop publishing and presentation applications software emerged and object-oriented programming became widely accepted as the programming tool of the future. As a result of all this phenomenal development with computer hardware and software, new peripheral devices such as CD-ROMs, sound cards, video capture cards, and color graphics processors have entered the microcomputer market to create Multimedia. Finally, when it seems that Business Educators have conquered the last frontier, Virtual Reality (VR) emerges as a viable computer technology to be introduced in the Business and Marketing Education curriculum.

What is VR

By definition, VR is a highly interactive, computer-based environment in which the user participates with a computer in a *virtually real* world. Highly sophisticated immersion VR involves 3-D computer simulations in which the user becomes engrossed so fully that artificial reality appears to be real reality. Artificial reality is sometimes used interchangeably with VR. However, some authorities say VR includes actual physical interface with a computer while artificial reality involves full-body participation. Cyberspace is a term that is also sometimes used interchangeably with the term VR. While VR is thought of as a relatively new technology, its beginnings can be traced back more than 60 years to Link Trainers, which were designed to duplicate airplane cockpits for training purposes in the late 1920s.

Like many technologies, VR has taken on several manifestations. However, it can be classified into three primary categories. They are desktop VR, telepresence VR, and immersion VR.

Desktop VR is perhaps the most simplistic version and has the most application for the Business and Marketing Education curriculum. Desktop VR consists primarily of a basic computer system that is capable of generating high resolution color 3-D graphics and some sound capabilities. It is used primarily for 3-D modeling and visualization.

Telepresence VR is related very closely to robotics and involves the use of sensory equipment to sense movement of live beings and persons so that the biological actions of living things can be replicated in robots and even graphic images for cartoons and video games. The Mario game character is a good example of telepresence VR. Although Mario is only an animated character, his facial expressions and body actions are actually generated by sensors that are attached to real people.

The third type of VR, immersion VR, is the most sophisticated type of VR. Immersion VR requires several pieces of additional equipment. This equipment includes a head movement tracker, a head-mounted display (HMD); 3-D glasses; a hand-tracker such as a glove with sensors; a partial or full-body sensor; biosensors (e.g., to detect muscle activity and eye movement); 3-D mice; a force ball (for manipulation or control); wands; optional navigational devices; and a 3-D sound processor. The goal of immersion VR is that the user will be stimulated so greatly by all the sensory devices and engrossed so intensely with

the interactive nature of Immersion VR that the virtual world becomes more real to the participant than real reality (the natural world itself).

Uses of VR

VR, like other computer applications, has found its niche in practically every industry. Architects use VR to *walk through* their designs; the aircraft and auto industry uses it to design and test car and airplane designs; Hollywood uses it to design movie sets; the medical industry uses it to simulate radiation treatment; urban planners use VR with renovation plans and proposed building projects; and the entertainment industry has destined VR to be its next conquest.

While used to some extent in every industry, perhaps VR offers the longest list of possible uses to education and training. These include exploration of existing places and things otherwise inaccessible; creation of places and things with different qualities from real ones; interaction with other people and common interest who are in remote locations; creation and manipulation of abstract models; and creation of any type of 3-D object. These objects can be drawn and studied from outside, inside, back, front, bottom, and sides. They can include natural structures such as molecular structures, cells, chromosomes, and geographical features like caves and volcanoes, or they can include man-made structures such as castles, forts, ships, homes, rooms, buildings, and even entire cities.

VR for the Business and Marketing Curriculum

Desktop VR lends itself to being integrated very easily in the Business and Marketing Education classrooms. Consequently, it can be used very effectively for planning and designing office layouts for many business and office related courses. In Marketing, the old shadow box store layouts can be replaced with visual 3-D simulations that students can *walk through* in designing retail business to get a better feel of traffic patterns, visual displays, and overall store design. Of course, the technology itself warrants inclusion in computer technology courses since VR is one of the most sophisticated uses of computer systems today. Finally, by using VR for 3-D modeling projects in computer applications courses, students can be highly motivated to work with object-oriented software. Since the entertainment industry has already capitalized on the concept of VR and introduced it into home entertainment games, perhaps one of the most motivational things we could do in the Business Education classroom is to bring a 32-bit Nitendo or Genesis system, complete with HMD, into the classroom so that all students can get a real sense of what VR is all about.

Because desktop VR is relative less sophisticated than immersion VR, it can be introduced into a Business or Marketing classroom very easily. Minimal hardware would include a 486 SX computer, VGA color monitor, 4 MB of RAM, and a 210 MB hard disk drive. More ideal configurations would include a 486 DX-2 processor, 8-16 MB of RAM, 350 MB hard disk, CD-ROM, and a 16-bit sound card. Macintosh Quadra or PowerMac computers are also ideal for Desktop VR. Software requirements include Microsoft Windows or other graphical user interface and the VR software. A good starting software package is Virtus Walkthrough, which can be acquired for approximately $200.

Conclusion

In conclusion, VR has opened a whole new world for the educational, entertainment, and business community as we rely on its powerful resources of sound, motion, sensory devices, and high resolution graphics to capture the interest of today's MTV generation. Most experts agree that because it does touch the user's senses of sight and sound, it is an instructional media that will be here to stay. In one sense, VR is just another step beyond Multimedia, but its applications are not considered frivolous since it gives us the abilities to experience a simulated environment in situations where the real thing is just not feasible because of cost, accessibility, or an element of danger.

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Portfolios in Teacher Education

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The 1984 Kentucky Legislature mandated the successful completion of a one-year internship by all new teachers to qualify for licensure as a certified teacher. The Kentucky Teacher Internship Program (KTIP) includes provisions for both formative and summative processes in assisting and assessing the progress of the intern teacher. The evaluation of interns rests on the professional judgment of a three-member committee established for each intern. The committee must be approved by the Education Professional Standards Board (EPSB) and consists of the building principal where the intern is employed, a resource teacher, and a teacher educator.

Throughout the internship, professional development plans become the focus of the committee's activities in working with the intern. Strengths and growth areas are identified for the intern after the first observations by the committee. These are updated with each set of observations when the intern meets with the committee. The collective professional judgments of this committee are based on observation reports (using the KTIP observation instrument), documented evidence regarding professional attributes and ethical issues, and the portfolio documentation created by the intern.

A second piece of legislation enacted in 1990, Kentucky Education Reform Act (KERA), highlighted the need to examine policies regarding teacher certification and measures to evaluate teacher effectiveness. In particular, efforts were needed to align the KTIP program more closely with KERA Goals and Learner Outcomes required in the new law. With the 1994-95 school year, committee members began to use a newly-designed observation form and greater emphasis has been placed on the intern's portfolio.

- Eight standards describing behaviors and processes critical to student learning have been approved by the EPSB to serve as the framework for the new system. A set of indicators were also identified to help with descriptions of teacher actions that support judgments about the standards. The standards are as follows:
  - Designs/Plans Instruction
  - Creates/Maintains Learning Climates
  - Implements/Manages Instruction
  - Assesses and Communicates Learning Results
  - Reflects/Evaluates Teaching/Learning
  - Collaborates with Colleagues/Parents Others
  - Engages in Professional Development
  - Demonstrates Subject Matter Competence

These eight standards have also become an important part of the teacher education program leading to the internship year. Beginning with the first professional education course, students develop and maintain a portfolio that follows them throughout the entire program. At the present time, at least one portfolio entry is being required for each of the eight standards. A number of suggestions and recommendations are given to students to help clarify the types of evidence they may submit.

Other requirements for the portfolio include a letter to the reader which:

- Explains student's philosophy of education
- Assesses strengths and weaknesses and goals for growth
- Reflects on student's ability to work with others
- Summarizes student's understanding of KERA, and
- Explains how evidence meets new teacher standards

Each student will also include a professional resume in the portfolio. At the end of the program, every student should have a fully developed portfolio with evidence of successful activities relating to the teacher education standards. This should prove to be valuable in the student's job search with school districts and serve as a strong foundation as they enter the internship year.

Opening Windows to the Future of Business Education

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Almost every computer that is sold today comes bundled with Windows software. Color monitors accentuate the bright color bars, frames, and icons that appear on the monitor when the computer is used. Many think of Windows as an operating system, but it is not; Windows operates under an operating system. Windows is a graphical user interface (GUI) that allows users to negotiate through programs by using icons and menus. Another way to think about a GUI--it is a shell that uses pictures (icons) rather than words to guide the user, which stresses the rule that *a picture is worth a thousand words*.

Today, software developers are writing more programs to operate in the Windows environment rather than in the DOS environment. There are word processors for Windows, databases for Windows, spreadsheets for Windows, presentation software for Windows, etc. It is important for Business Educators to understand the Windows environment in order to efficiently operate other software programs.

Windows Vocabulary

As educators begin to work in the Windows environment, educators need to develop a new vocabulary and assign new means to old terms. Educators must begin to think of *Windows* not only as panes that provide visual access to the outside and let soothing sunshine and fresh air filter to the inside, but also as panels that will allow us to hold and keep chunks of information. Educators need to think of wallpaper not only as wall covering, but also as a background for our Windows panels; to think of buttons, not only as fasteners, but also as ways to execute commands; to think of a mouse, not only as a little furry rodent, but also as an input device. Educators must understand that a dialog box is not a box in which educators carry on a conversation.

Educators need to learn to drag and drop--not what educators do on Friday afternoon after a full week of classes--but to move files and icons to different locations. Educators need to understand how to cascade and tile--not with waterfalls and floors--but with arranging Windows on the desktop. Educators need to understand how to minimize and maximize--not only our resources--but also the icons on our desktop. And, educators need to be able to resize and restore Windows.

Windows Desktop

The Windows environment can be compared in a broad sense to an office. In an office you have, among other things, a desk, a clock, file cabinets, and wallpaper (maybe only paint, but it is a wall covering). On your desk you have an assortment of objects--file folders, writing utensils, a calendar, a Rolodex, a calculator, and several projects that you are completing at the same time. The concept of the Windows environment is that all of these objects and projects are conveniently arranged in one place on your computer monitor and are accessible not only through the keyboard but also through the use of Windows as well.

On your desk, you may complete several projects at the same time. Several windows can be opened at the same time. The windows are layered or tiled on top of each other and any one of them can be accessed with a click of the mouse button. The clock or the calculator can be embedded into other files so that they are visible all day. The calendar can be used to schedule appointments and to generate *To Do* lists with alarms set to remind you of scheduled appointments.

All of these commands are represented on the desktop by icons which are little pictures that visually illustrate a function. For example, if you want to open your files, you click your mouse button on a picture of a file cabinet; if you wish to use your calculator, you click your mouse button on a picture of a calculator; if you want to write a memo, you click your mouse button on a picture of a pen.

Communication Tools

In addition to text and graphics, Windows also has communication tools which allow your computer to communicate with other computers. By clicking your mouse button on the communications icon, you are able to connect to your

modem and dial other computers with modems or connect to the information superhighway via the Internet or other online services. Faxes can be sent from your Windows applications to other fax machines, and faxes can be received in your computer files.

Modifying Classes

Some aspects of Windows that have special significance to Business Educators would include those that related to Administrative Procedures classes. Administrative Procedures classes have always been equipment intensive--typewriters, copiers, computers, calculators, transcribers, etc. Many of these pieces of equipment can be eliminated with the use of Windows applications. Graphics can be created using the paintbrush and retrieved into other files to create brochures, pamphlets, letterheads, etc. Windows built-in word processor, Write, can also be used for desktop publishing because of the built-in scaleable fonts and the ability to insert graphics through the paintbrush.

The Cardfile

The Cardfile is an especially useful desktop tool. The Cardfile is a database file that simulates 3" by 5" index cards. The Cardfile can replace your Rolodex with instant access to phone numbers and addresses. Some other suggested uses for the Cardfile are:

- Store names, addresses, and telephone numbers of students in each of your classes. Have a separate file for each class. Print a list of all the members in the class and tape this in your gradebook. This eliminates the need to handwrite each name in the gradebook.

- Have a file with the names and phone numbers of frequently called colleagues. With your computer on your desk, the phone numbers are always at your fingertips.

- Have a file of book publishers with the pertinent information about each book that has been adopted for your classes such as number of books ordered for each class, ISBN numbers, phone numbers and addresses of publishers, etc.

- Keep track of equipment purchases and repairs in an equipment file.

All applications in Windows are compatible. If the computer is connected to a modem and a phone, you can use the Cardfile to dial a phone number.

Summary

The Windows environment provides a desktop with many of the common things ordinarily on our desks--clocks, calendars, notepads, cardfiles, etc. Thus, the user may work on more than one thing at a time because several windows can be open simultaneously. Since most of the software programs that previously were written for the DOS environment are now being written for the Windows environment, it is more important than ever to learn the language of windows and how to negotiate the mouse.

Innovation Through Office Technology: A Key to the Future of Business Education

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Creativity, Innovation, Continuous Improvement, Total Quality--popular jargon used by today's organizations! This philosophy of creativity for innovation enables organizations to cultivate "a process-oriented way of thinking and developing strategies that assure continuous improvement involving people at all levels of the organizational hierarchy" (Imai, 1986). Such a system requires a new organizational culture that considers change, rather than stability, the norm. Under this ethic, complacency with the *current way of doing things* is banished from the organization.

In a change environment, unending improvement by all employees is repeatedly emphasized and supported. Organizations are not consciously redesigning their existing operations to establish autonomous operating units, devising ways to develop multiskilled employees, and establishing team processes for continuous improvement. In this setting, improvement results from small, frequent modifications to ongoing processing activities. These incremental improvements are directed solely at the organization's work processes. It is assumed that the cumulative affect of these process-oriented improvements will automatically lead to improved performance in terms of quality and productivity for the organization. Ideally, the long-term effect of continuous improvement efforts will create a renewed sense of competitive energy in organizations.

What is the role of office technology in this innovation or continuous improvement notion? Various literature sources now cite that in terms of economic impact, the pendulum is fast swinging, from the development of information technology, to the application of information technology. And, therefore, it is only those who have the foresight and creative initiative to apply information technology who will emerge victorious. This applies both to business and other enterprises and to nations.

As it applies to our country, whether the United states will continue to be the dominant economic power for the years to come will largely depend on which nation takes the lead in the *information race*. And this is a race which makes the *space race* of a generation ago insignificant by comparison. The space race--even with its technological spin-offs--had as its prize, national pride. The information race is considerably more serious. The prize is nothing less than economic and social stability and prosperity.

And those who design, recommend, and implement information management systems have an obligation and an opportunity to play a key role. The movement of information in all kinds of forms--voice, data, image, text--has become the lifeblood of business and government. The management of information as a resource is today as important as the management of the more traditional human and financial resources. Statistics indicate that possibly one-half of the labor force is involved in the generation, manipulation and communication of information. Whether we like it or not, we are competing in an information race. The importance is such that the nation that leads--or wins--will be in a dominant economic position.

So, what does it take to be the teacher or to win? First, it takes the ability and the determination to develop new technology. Second, it takes the ability and determination to apply that technology. Both are essential. Innovation and leadership in the development of new technology is essential. In tandem with innovation of new technology is the innovative application of that technology which is critical to our economic survival.

So, is the U.S. making progress? A recently published computer productivity study indicated that information technology, as of 1994, is one of the big contributors to growth. Productivity in the service industries, which are notoriously hard to measure but an increasingly dominant and huge part of the economy, grew at 1.5% annual rate in the 90s, after declining in the late 70s and remaining flat during the 80s. After viewing other historical patterns of introduction of new technology, it makes no sense today to expect *an immediate and tight linkage between the introduction of new technology and immediate productivity*. First, you have to clear away the existing structure, a tightly organized whole in which everything is so intricately adapted to

everything else that demolition is tough. The dual process of laborious clearing away along with slow, fitful reconstruction, is what was going on during the era of drooping productivity in the 1970s and 1980s. As new information systems went in and employees learned to use them--very inefficiently at first--the old systems kept on operating alongside until the new ones got up to speed. Meanwhile, the double costs smothered productivity. Mistakes occurred. New systems sometimes did not work or did not work well enough to make a difference. Even when everything went fine, organizations were doing piecemeal rather than integrated automation, so that the uncomputerized bottlenecks kept the productivity benefits from flowing through the entire operation (Magne, 1994).

Do not forget the human factor either. In the face of the transformation to the new economy, managers have had a way of fighting hard to hold on to the information which is their basis of power, to reinforce hierarchical, centrally controlled structures. Thus, productivity is restrained rather than liberated.

Now, with competition the order of the day, company after company tells the same story of technological change combining with organizational change to yield higher productivity. When Americans think of information technology's productivity-enhancing power, our first thought is of how computers have let business cut scores of clerks, middle managers, and other workers in the past decade. But now, economist Stephen Roach argues that a new stage is opening in which productivity enhancements come from using technology not to cut costs but rather to provide new tools to the core of the work force in the new economy, the army of higher-paid technical, professionals, and managerial workers whose productivity computerization so far has been scarcely touched (Magne, 1994).

In the emerging order of the new economy, those managers who understand how to use info tech as a productivity booster will do more than ensure the success of their own careers. For productivity growth directly affects the national standard of living, and the way Americans play the game may well determine the extent to which America can remain the dominant economic superpower in the years ahead.

Because of the growing complexity of computer technology and the business environment, the office technology field has become an ambiguous subset. The term office, office automation, office technology has been promoted and defined in great part by the hardware and software industry, who have seized the opportunity to promote the term to suit their products (OASI Newsletter, 1994). Educators, too, have formulated different curricula of subjects to provide skills to those who chose business office careers. It may boil down to a question of: *What is office automation/technology?*

Regarding office technology-specific educational programs, the Business Education community should heed the loud and clear message of other fields seeking more focused education: the training should be market-driven and not necessarily follow the mode cast by traditional college classroom instruction. There are now jobs, companies, and even industries that formerly were not considered appropriate for the academic environment. Business Education is changing incredibly fast and is reaching out to industry--in the U.S. and globally--to ask what they can do. In these new programs, all teachers may not necessarily reside in academia. Many courses with an entrepreneurial bent have made wide use of adjunct instructors who are currently active in business or are retired. They bring with them the spirit of the industry.

Properly educated people are the key. How to instill and develop the creativity in individuals to be innovative in the workforce to cause continuous improvement and productivity is the challenge facing Business Educators. If office technology does not keep up, it may look like it is falling behind. There needs to be a supply of highly qualified candidates provided by Business Education programs who will hit that ground running and become productive faster than ever before!

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